



brandeis university bulletin

1971-1972

college
of
arts
and
sciences

august 24, 1971

COVER: *An artistic likeness of Supreme Court Justice
Louis Dembitz Brandeis*

Vol. XXII No. 1, August, 1971

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Brandeis University

College
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Sciences
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WALTHAM, MASSACHUSETTS

*Louis Dembitz Brandeis
from a sculpture by Robert Berks*



"It must always be rich in goals and ideals, seemingly attainable but beyond immediate reach . . .

"It must become truly a seat of learning where research is pursued, books written, and the creative instinct is aroused, encouraged, and developed in its faculty and students.

"It must ever be mindful that education is a precious treasure transmitted—a sacred trust to be held, used, and enjoyed, and if possible strengthened, then passed on to others upon the same trust."

—from the writings of
LOUIS DEMBITZ BRANDEIS (1856–1941)
on the goals of a university.



creative arts complex

“Brandeis will be an institution of quality, where the integrity of learning, of research, of writing, of teaching, will not be compromised. An institution bearing the name of Justice Brandeis must be dedicated to conscientiousness in research and to honesty in the exploration of truth to its innermost parts.

“Brandeis University will be a school of the spirit—a school in which the temper and climate of the mind will take precedence over the acquisition of skills and the development of techniques.

“Brandeis will be a dwelling place of permanent values—those few unchanging values of beauty, of righteousness, of freedom, which man has ever sought to attain.

“Brandeis will offer its opportunities of learning to all. Neither student body nor faculty will ever be chosen on the basis of population proportions, whether ethnic or religious or economic.”

DR. ABRAM L. SACHAR, Brandeis' first president, at ceremonies inaugurating the University, October 8, 1948





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Academic Calendar 1971/1972

Fall Term

Sunday	September 12	New students arrive on campus.
Monday	September 13	New students register.
Tuesday	September 14	Returning students arrive on campus.
Wednesday	September 15	Returning students register 8:00 A.M.—12:00 Noon. New students enroll in sections 1:00 P.M.—2:30 P.M. Returning students enroll in sections 2:30 P.M.—4:30 P.M.
Thursday	September 16	} Opening days of instruction in courses.
Friday	September 17	
Monday	September 20	} No University exercises.
Tuesday	September 21	
Wednesday	September 29	No University exercises.
Monday	October 4	No University exercises.
Thursday	October 7	Freshman final study cards due no later than 5:00 P.M.
Friday	October 8	Upperclass final study cards due no later than 5:00 P.M. Last day on which students may make a program change without a fee of five dollars.
Monday	October 11	No University exercises.
Friday	October 22	Last day on which students may make a program change with a fee of five dollars. No student may enter a course in the Fall term 1971–1972 after this date.
Friday	November 5	Grades for work incomplete in the previous June due in the Office of the Registrar.
Thursday	November 11	No University exercises.
Friday	November 19	Midterm grades due.
Thursday	November 25	} No University exercises.
Friday	November 26	
Friday	December 17	Winter recess begins after the last class.
Monday	January 3, 1972	Classes resume.
Monday	January 17	No University exercises.
Tuesday	January 18	} Midyear examinations.
Friday	January 28	



Spring Term

Monday	February 7	} Opening days of instruction in the Spring term.
Tuesday	February 8	
Thursday	February 17	Freshman Spring term study cards due.
Friday	February 18	Upperclass Spring term study cards due. Last day on which students may make a program change without a fee of five dollars.
Monday	February 21	No University exercises.
Friday	March 3	Last day on which students may make a program change with a fee of five dollars. No student may enter a course in the Spring term 1971-1972 after this date.
Friday	March 17	Grades for work incomplete at the end of the Fall term due in the Office of the Registrar.
Tuesday	March 28	Cumulative Spring term midterm grades due. Spring recess begins after the last class.
Monday	April 10	Classes resume.
Thursday	May 11	Freshman plans of study and freshman preregistration cards due.
Friday	May 12	Upperclass preregistration cards due.
Friday	May 19	No University exercises.
Monday	May 22	No University exercises.
Tuesday	May 23	} Final examinations.
Friday	June 2	
Monday	May 29	No University exercises.
Sunday	June 11	Commencement.



Brandeis University



Brandeis University has set itself to develop the whole man, the sensitive, cultured, open-minded citizen who grounds his thinking in facts, who is intellectually and spiritually aware, who believes that life is significant, and who is concerned about society and the role he will play in it.

The University will not give priority to the molding of vocational skills, nor to developing specialized interests at the expense of a solid general background. This does not mean that what is termed practical or useful is to be ignored. Brandeis merely seeks to avoid specialization unrelated to our basic heritage—its humanities, its social sciences, its sciences and its creative arts. For otherwise, fragmentized men, with the compartmentalized point of view that has been the bane of contemporary life, are created.

A realistic educational system must offer adequate opportunity for personal fulfillment. Education at Brandeis encourages this drive for personal fulfillment, but only within the framework of social responsibility. Thus Brandeis seeks to educate men and women who will be practical enough to cope with the problems of a technological civilization, yet mellowed by the values of a long historical heritage; self-sufficient to the point of intellectual independence, yet fully prepared to assume the responsibilities society imposes.

Brandeis University came into being because of the desire of American Jewry to make a corporate contribution to higher education in the tradition of the great American secular universities that have stemmed from denominational generosity. By choosing its faculty on the basis of capacity and creativity, and its students according to the criteria of academic merit and promise, the University hopes to create an environment which may cause the pursuit of learning to issue in wisdom.



This initial and unwavering commitment to excellence has earned early acceptance for the University within academic circles. Full accreditation came to Brandeis at the earliest possible moment. In 1961, Phi Beta Kappa granted permission for a chapter (Mu of Massachusetts) to be formed on its campus. Most recently the Ford Foundation assessed the record and potential of the University and buttressed their belief in its future with two major challenge grants to Brandeis for academic excellence, an accolade accorded to only five universities in the nation.

University Organization

Brandeis is one of the few small universities in the United States. The academic programs, described below, are each limited in size to encourage quality and integrity of intellectual achievement. There is constant interaction between college, graduate and professional schools, and institutes. The accomplishments of one set automatic pace for the others, and the interchange benefits all, creating an intellectual environment of decided vitality. Additionally, the organic richness of the extensive research activity fertilizes the undergraduate roots of the institution no less than the graduate and professional programs.

The College of Arts and Sciences

In keeping with its general objectives, Brandeis attaches the greatest of importance to the liberal arts curriculum. It is designed to offer full academic opportunities for those students planning to pursue graduate or professional studies as well as those whose educational objective is the baccalaureate degree.

The College of Arts and Sciences offers instruction in the Schools of Creative Arts, Humanities, Social Science and Science. Regularly matriculated students pursuing courses of instruction under the Faculty of Arts and Sciences may, upon satisfactory completion of the first year, continue as candidates for the Bachelor of Arts degree.

Established in 1948, full accreditation was received by Brandeis' College of Arts and Sciences from the New England Association of Colleges and Secondary Schools in 1953.

The Graduate School of Arts and Sciences

The Graduate School is designed to educate broadly as it trains professionally. It is sensitive to the fact that as specialization increases within society, the traditional boundaries between the Ph.D. and advanced professional degrees are gradually losing their distinctions. It seeks to achieve a spirit of informality, without sacrificing work disciplines.

The Graduate School of Arts and Sciences offers courses of study leading to the master's and doctor's degrees. Graduate areas include Anthropology, Astro-Physics, Biochemistry, Biology, Biophysics, Chemistry, Comparative History, Contemporary Jewish Studies, English and American Literature, History of American Civilization, History of Ideas, Mathematics, Mediterranean Studies, Music, Near Eastern and Judaic Studies, Philosophy, Physics, Politics, Psychology, Sociology and Theater Arts.

(Full information is available in the catalog of the Graduate School of Arts and Sciences.)

The Florence Heller Graduate School for Advanced Studies in Social Welfare

The Florence Heller Graduate School for Advanced Studies in Social Welfare, made possible through the generous grant of the late Mrs. Florence Heller of Chicago, was established at Brandeis University in 1959. The School has two basic educational programs:

1. The doctoral program for experienced social welfare practitioners who have the degree of Master of Social Work, or its equivalent, and experience on a professional level.
2. The pre-doctoral program for students without professional experience leading to the degrees of Master of Social Work and Doctor of Philosophy.

The program of study both for the experienced social welfare workers and beginners leads to the doctorate and is designed to qualify graduates for administrative and consultative roles in established areas of social work, as well as newly emergent areas such as international social work, inter-group organization, labor, industry and government. Emphasis is placed upon community organization, social work administration and research, making full use of the social sciences.

Students who enter the doctoral program are required to spend two years in residence. Those who enter the pre-doctoral program will receive the degree of Master of Social Work during the period of their doctoral study when they complete the requirements for the Master's degree.

(Full information is available in the catalog of the Heller Graduate School.)

Rosenstiel Medical Science Research Center

The Lewis S. Rosenstiel Medical Science Research Center will coordinate medically oriented work in biochemistry, biology, chemistry, microbiology, psychology, sociology and in the University's Florence Heller Graduate School for Advanced Studies in Social Welfare.

The Center, created through the largest single gift in the University's history, was made possible by Brandeis Fellow Lewis S. Rosenstiel. The Center will draw together Brandeis faculty members whose research work is medically related, without diminishing their teaching responsibilities or altering important research projects already underway. Simultaneously, under the leadership of a Director and the advice of a Faculty Council, the Center will gradually broaden its scope to encourage new research, invite the participation of distinguished scholars and medical scientists, offer hospitality for younger researchers at a fellowship level, sponsor symposia and colloquia, and underwrite scholarly publication.

Mr. Rosenstiel's gift also permits the University to construct a major science facility which will house the Center and offer the scientists working in the Center the most sophisticated and modern scientific equipment and facilities.

At the same time, the Rosenstiel Biochemistry Program, established by the Dorothy H. and Lewis S. Rosenstiel Foundation in 1957, "in support of research in the natural sciences with primary emphasis in biochemistry," will continue undiminished. The program now includes more than 70 graduate and postgraduate research fellows.

Endowed Schools

The Danielsen School of Philosophy, Ethics and Religious Thought

The Albert V. Danielsen School of Philosophy, Ethics and Religious Thought was made possible through a gift from a Fellow of the University from Wellesley Hills, Massachusetts.

The School includes the Department of Philosophy which now combines undergraduate and graduate programs through the M.A. and Ph.D. degrees. The graduate program in philosophy is designed to prepare students for careers in the field as scholars and teachers, and it places traditional emphasis on logic, epistemology, metaphysics, value theory and the history of philosophy. Added to the two fully endowed chairs of philosophy in the School is the Albert V. Danielsen Chair in Christian Thought, and plans are now underway for the establishment of the Pope John XXIII Chair in Catholic Thought.

The Danielsen School thus hopes to encourage the advancement of philosophical thought in the context of contemporary issues, following the broadest scholarly and interdisciplinary approaches in an age of ecumenism and imperative social need.

Fierman School of Chemistry

The Harold and Minnie Fierman School of Chemistry, created through a benefaction from Brandeis Trustee Harold Fierman, incorporates graduate and undergraduate programs, including research activities, lecture programs and colloquia. The American Council on Education has cited the Brandeis program as a national leader in the field of graduate study.

At the undergraduate level the curriculum is highly diversified, including basic courses in analytical, nuclear, organic and physical chemistry, as well as chemical kinetics and structure determination of crystals and molecules.

At the graduate level, M.A. and Ph.D. candidates pursue advanced studies and research projects in quantum chemistry, enzyme reactions and synthetic and theoretical chemistry. Graduate students at Brandeis hold National Science Foundation Fellowships, National Institutes of Health Fellowships and National Aeronautic and Space Administration Traineeships, among others.

The School has been aided, in part, by grants from the Atomic Energy Commission and the National Science Foundation.

The Fisher School of Physics

The Martin Fisher School of Physics was established through a gift from Martin Fisher of New York City, a Fellow of the University. The School is

designed to strengthen the physics curriculum and emphasize both theoretical and experimental physics.

Through scholarship and fellowship assistance provided by Mr. Fisher, teaching and research at the undergraduate, graduate and post-doctoral levels will be enhanced, and a setting provided for lectures, colloquia and scholarly publications produced by the School.

The School's undergraduate program ranges from introductory courses in classical and modern physics, computer sciences and astronomy, to atomic and nuclear physics, theoretical and continuum mechanics, quantum mechanics, high and low energy nuclear, solid state and mathematical physics. M.A. and Ph.D. programs include 12 research courses, courses in astrophysics, atomic and plasma physics, quantum theory of fields and solids and courses in general and special theories of relativity.

Grants from such agencies as the National Science Foundation, the Atomic Energy Commission and the Bureau of Naval Research, among others, support research programs in the Fisher School.

The Kutz School of Biology

The Milton and Hattie Kutz School of Biology was made possible through a gift from the estate of the late Hattie Kutz of Wilmington, Delaware. The School encompasses the University's undergraduate and graduate biology departments. The biology curricula present a comprehensive body of courses that advance from fundamental studies to more complex areas with special heed to new discoveries and the results of current experimentation.

Students are offered a well-conceived balance between traditional background in biology and the thorough discussion of new knowledge constantly developing in this discipline. They are also encouraged to engage in original research and independent study. The biology program, directed and taught by first-rank scientists, also provides research and teaching opportunities for a large number of post doctoral fellows.

A sizable portion of the governmental, industrial and private research grants awarded to the University are devoted to varied projects in biology, including cancer research. Distinguished scientists appear frequently at colloquia and lectures to explain their investigations.

Lown School of Near Eastern and Judaic Studies

Created through the generosity of Brandeis Trustee Philip W. Lown of West Newton, Massachusetts, the Lown School of Near Eastern and Judaic Studies encompasses an intensive teaching and research program in ancient and modern Jewish thought, history, culture and issues, offered by both the

undergraduate and graduate departments of Near Eastern and Judaic Studies. The University has assembled an array of distinguished scholars who offer an extremely broad complex of programs designed to prepare them for scholarly careers or for communal service.

The School includes the Center for Contemporary Jewish Studies, organized for the specific purpose of further research and seminars dealing with major contemporary issues.

The Lown School of Near Eastern and Judaic Studies cooperates closely with the American Jewish Historical Society, whose headquarters building on the Brandeis University campus was completed during 1968.

The Poses School of Fine Arts

The Poses School of Fine Arts, established through a gift from Brandeis Trustee and Mrs. Jack I. Poses of New York City, embodies the broad undergraduate curriculum in the fine arts. It also incorporates the Poses Institute of Fine Arts, which supplements course work and workshops in painting and sculpture. Plans for launching a graduate program are now under study.

The undergraduate program in fine arts provides a substantial area of studies in the form and meaning of art from the present day to antiquity. The program stresses individual creativity and the varied techniques of the artist.

The Poses Institute of Fine Arts is host to exhibitions of paintings, sculpture, artifacts and other forms of contemporary and traditional art in the University's museum and many gallery halls. It is the focus of the Brandeis art acquisition program and conducts lecture series and symposia with notable historians, critics and artists. Its annual institutes are concerned with basic issues in the arts and contemporary life.

Related Academic Programs

Wien International Scholarship and Fellowship Program

The Wien International Scholarship Program, created in 1958 by the Lawrence A. and Mae Wien Fund, is designed to further international understanding, to provide foreign students with opportunities for study in the United States, and to enrich the intellectual and cultural life of the Brandeis campus.

The Program permits the University to offer scholarships and fellowships on the undergraduate and graduate levels. The undergraduate scholarship covers the basic costs of tuition, on-campus board and room, and standard student fees. In some instances, based upon financial need, the grant may be extended to include book allowances, a weekly maintenance allowance, and—on very rare occasions—travel. Awards made for a single academic

year to students who are candidates for a degree may be renewed upon application. Renewals may be granted by the Committee on the Admission of Wien Scholars and its decision is final.

Undergraduate applicants may also be accepted as Special Students. Such students must have completed at least the first degree in their home countries. With the consent of the Director of the Program, they may then take courses at Brandeis which do not duplicate those studied at their home universities. Grants for Special Students are given for only one year and may not be renewed. It is expected that Special Students will apply for this "year abroad" in order to enhance and complement work taken in their own countries, and that these students will return to their home universities when their year at Brandeis has been completed.

All applicants for both the undergraduate and graduate grants must have a thorough knowledge of the English language inasmuch as all students study within the regularly organized curriculum. In addition, opportunities are provided for all Wien Scholars to attend special seminars, conferences, and field trips which are planned to provide an understanding of many facets of American society.

The Wien Program participates with Harvard, Boston College, Boston University, and Massachusetts Institute of Technology in the BASIS (Boston Area Seminar for International Students) summer orientation program which is open to students who have been admitted to these universities. This program facilitates the adjustment of foreign students to American academic communities. Foreign students also have the privilege of participating in a program-oriented, home-stay schedule of visits and hospitality developed through the Wien Office.

Inquiries concerning the undergraduate program should be addressed to the Wien International Scholarship Program at the University and should contain a brief resumé of the applicant's scholastic background and field of interest. Inquiries concerning the graduate program may be addressed either to the Wien Office or to the Graduate School itself.

The Abram L. Sachar International Coordinated Degree Program

The Abram L. Sachar International Coordinated Degree Program was set up by the Trustees in tribute to the twenty years of incumbency of the first President. It is a highly selective program that sends Brandeis graduate and undergraduate students to outstanding foreign universities for up to two years to round out the training that they have had at Brandeis. The program was modestly initiated in the 1969-70 academic year in about a dozen foreign universities with whom special arrangements have been completed. These include such African universities as Ife in Nigeria; Makerere in

Uganda; the University of Ghana in Ghana; Abidjan in the Ivory Coast; Sussex in England; the Hebrew University in Israel; the University of the Andes in Colombia. In succeeding years it is expected that other universities in various parts of the world will be included in the collaboration arrangements.

The program operates on a variety of levels. For example, a graduate student upon completion of his qualifying examination may pursue his advanced research at a university especially appropriate to his interests. Or an unusually well-qualified undergraduate may obtain permission from his department to spend two years (or a portion thereof) at a foreign university which has offerings not available or not as highly specialized as at Brandeis. Validation for work done abroad depends upon departmental approval. In some cases participation in the program may lead to the awarding of joint or coordinated degrees from both universities.

Although the emphasis of the program is upon students, provision has also been made for occasional special faculty grants to provide opportunities for Brandeis faculty to complete specialized research in foreign universities.

Since the Sachar Scholarship and Fellowship holders continue to be Brandeis degree candidates, they are expected, while overseas, to keep in close touch with their Brandeis academic advisers. At the same time, it is expected that they will work under direct supervision at the foreign university where they are enrolled.

All expenses for the scholarships and fellowships will be underwritten by the Sachar Tribute Fund. Applications for inclusion are to be directed to the Office of International Studies and will be evaluated and processed by a special faculty committee.

Jacob Hiatt Institute in Israel

The University conducts an annual semester Institute in Israel. Open to college and university juniors and selected seniors who have completed introductory courses in political science, sociology, or social psychology, the Institute offers instruction in modern Jewish and Israel history, Israel political and social institutions and the Hebrew language.

Made possible by Brandeis Trustee and Mrs. Jacob Hiatt of Worcester, Mass., the Institute is housed in Hiatt House, a 10-room structure in the Talbieh section of Jerusalem near the famed rose gardens. The Institute is unique in that it emphasizes first-hand investigations. Formal classroom work is supplemented by seminars with persons prominent in Israel's political and economic life, and field work is conducted at on-the-spot locations.

Enrollment in the Hiatt Institute is also open to a limited number of qualified students from other colleges and universities. Among the colleges and universities, in addition to Brandeis, from which students have come to

study at the Jacob Hiatt Institute are: Antioch, Boston University, Brooklyn College, Brown University, Bryn Mawr, University of California, City College of New York, Carleton, Clark, Colby, Cornell, Dickinson, Goucher, Harvard, Hunter, University of Illinois, Jackson College (Tufts University), Massachusetts Institute of Technology, Oberlin, Ohio State, University of Pennsylvania, Reed, Temple, Vanderbilt, University of Vermont, Washington University, Wayne State, Wesleyan and University of Wisconsin.

Robert and Jean Benjamin Center for International Studies

Underwritten by Brandeis Trustee Robert S. Benjamin, board chairman of United Artists Corporation, the Center for International Studies will support both teaching and research. It will embrace undergraduates, graduate students, resident faculty, visiting scholars and experts.

The Center's primary function will be to serve as the organizing instrument for teaching and research focusing on selective themes of scholarly importance to international studies and to the pursuit of peace.

The Center will devote itself to the theme of the international consequences of modernization in terms of a variety of topics. Any topic chosen will be explored in a number of ways.

The first and constant objective will be to combine teaching and research in a way that will benefit and stimulate teachers, graduate students and undergraduates alike.

The daily operation of the Center will be the responsibility of a director and a board of faculty advisers. The advisers will be drawn from the various departments that are most concerned with international affairs.

Lemberg Center for the Study of Violence

The Lemberg Center for the Study of Violence was organized to provide, within a scholarly setting, major research and training in the problems of violence and to establish a forum for a continuous dialogue that will reach out to all segments of the community. The staff of the Center, which is an outgrowth of the University's three national conferences on violence, seeks to analyze the legal, psychological, psychiatric and sociological aspects of violence and hopes to develop techniques for its control. The initial research activities of the Lemberg Center have dealt primarily with the causes of racial violence in fourteen major American communities.

Established through a generous benefaction of Brandeis Trustee Samuel Lemberg of New York City, the Center has subsequently received substantial research grants from the Ford Foundation and the National Institutes of Mental Health.

Irving and Rose Crown Fellowships

Underwritten by the Crown family of Chicago, the Irving and Rose Crown Fellowships subsidize graduate students in the field of American Civilization with substantial grants to complete their studies and research. The fellowships are designed to attract gifted and interested scholars who plan careers in teaching, research, government, diplomacy and allied areas. Candidates are proposed annually by a faculty committee drawn from Brandeis and screened by distinguished authorities from other universities. Applicants need not be Brandeis students and should have reached a point where they are in the final stages of their work to attain their doctorate. At least ten fellowships are awarded annually.

Goldwyn Life Sciences Fellowships

Established by the Samuel Goldwyn Foundation of Los Angeles, the Samuel Goldwyn Life Sciences Fellowships provide support for graduate students studying the life sciences. Preference is given to foreign-born applicants who need financial aid and who seek to study in the United States. Five full fellowships—covering tuition, health fee, research support and a stipend—are provided annually.

The Sarah and Gersh Lemberg Nursery School

The Lemberg Laboratory-Nursery School was established, as a unit of the Psychology department, in the fall of 1961 through the generosity of Brandeis Trustee and Mrs. Samuel Lemberg of New York City. Both indoor and outdoor facilities and equipment accommodate some 30 youngsters. Brandeis students enrolled in the education sequence, and students from Tufts University and Wheelock College, serve as practice teachers.

Professorships and Lectureships

Jacob Ziskind Professorships

To implement its philosophy of education, the University brings to the campus distinguished academic figures from sister universities both in the United States and abroad who serve as Ziskind Visiting Professors. This program, made possible by the Jacob Ziskind Endowment Fund, enables the University to supplement its regular teaching staff with the presence of academicians drawn from other major streams of educational thought. Inclusion of distinguished foreign academicians serves to challenge and stimulate faculty and students with the introduction of new concepts and new educational viewpoints, thus strengthening the entire educational process.

Louis Dembitz Brandeis Memorial Lecture

The annual Louis Dembitz Brandeis Lecture, named in memory of the late Supreme Court Justice, traces its origin to the very beginning of the University's life and is presented under the auspices of the Maurice Bernstein Memorial Fund.

Abba Eban Lectureship

Through the generosity of the late Nathan Straus, this endowment permits an annual lecture by a statesman or scholar on some phase of Middle Eastern affairs.

Harold Sherman Goldberg Annual Lectureship

Established to honor the late Harold Sherman Goldberg, a Fellow of Brandeis, the annual lecture brings to the campus a leader in one of the fields of government, the humanities, fine arts, the sciences or social sciences. The fund was established by Mrs. Romaine Goldberg, other members of the family and his friends and associates.

Harry B. Helmsley Lecture Series

Established to reduce barriers that separate different races, creeds and nationalities, this annual public lecture series has, since its inauguration, featured leading philosophers, educators, government officials and religious leaders in discussions and seminars that relate to intergroup understanding.

Sidney Hillman Memorial Lecture

The Sidney Hillman Memorial Lecture in Public Concern was established by the Sidney Hillman Foundation, Inc., of New York City to create annually, in memory of the late labor leader, a sound and constructive platform which will benefit the broad society and serve an important public cause.

Adolph Ullman Memorial Lecture Series

Established by devoted friends of the late Boston philanthropist and former member of the Brandeis Board of Trustees to pay tribute to a gifted patron of the creative arts. This annual lecture series presents distinguished artists, critics and historians.

The Martin Weiner Memorial Lectureships

The income from this endowment fund permits the designation of several Weiner Memorial Lecturers each year. Lecturers receiving these appointments are selected not only from the academic world, but also include figures drawn from the fields of religion, government, international affairs, letters, science and the business world. The Weiner Memorial Lecturers enrich the University's curriculum by participating in regular academic seminars and symposia and, in addition, University convocations and public events.

Stephen S. Wise Memorial Lecture

This annual lecture was established by the late Nathan Straus to bring to the University each year a distinguished representative of the liberalism that was basic to the outlook of Dr. Wise.

George and Charlotte Fine Endowment Fund

Created to supplement chamber music programs given under the auspices and direction of the Department of Music, the Fine Endowment Fund makes possible the engaging of visiting artists to perform with members of the Brandeis faculty.

Special Academic Programs

Rogoff Foundation Trust

The Rogoff Foundation Trust, a major gift established by the trustees of the Rogoff Foundation Inc., provides support for scholarships, fellowships, study or research in the pre-medical or medical sciences, or related life sciences.

American Jewish Historical Society

In the established pattern of learned groups which elect to locate at colleges and universities, the American Jewish Historical Society is housed on the Brandeis campus as a separate and autonomous organization. It provides, however, a focus for scholarly research, symposia, and a common meeting ground for interested undergraduate and graduate students, international figures and for the work carried forth at Greater Boston's many libraries, museums, colleges, and universities: thus enriching both Brandeis and the Society. Its site near both the University library and its Judaic center was made available by Brandeis. The building funds were provided by the late Lee M. Friedman, a former president of the Society, attorney and Boston resident.

Lowell Institute Cooperative Broadcasting Council

Brandeis University is a member of the Lowell Institute Cooperative Broadcasting Council, which sponsors the educational radio station WGBH-FM and Boston's educational TV station WGBH-TV, Channel 2. Brandeis, along with Boston College, the Boston Symphony Orchestra, Boston University, Harvard University, Lowell Institute, MIT, the Museum of Fine Arts, the New England Conservatory of Music, Northeastern University, Museum of Science, Simmons College, Yale University and Tufts University, makes its teaching facilities available for use by WGBH-FM and its television affiliate, WGBH-TV. One of the significant programs of the University's educational broadcasting is "The Prospects of Mankind," organized by the late Mrs. Eleanor Roosevelt, which appeared on both educational and commercial TV stations in the United States and abroad. This program was sponsored by the National Educational Television Center and was produced by WGBH-TV in cooperation with Brandeis University.

Edith Barbara Laurie Theater Arts Trust Fund

Established by Mr. and Mrs. Irving Laurie in memory of their daughter, the Edith Barbara Laurie Theater Arts Trust Fund aids in the support of the University's respected theater arts program. The funds provided in this gift help to develop and strengthen the theater arts curriculum and its frequent stage presentations.

Dretzin Living Biographies Program

The Dretzin Living Biographies Program is underwritten by a grant of Samuel C. Dretzin of New York City, a Fellow of the University. The program aims to bring to the campus, at least once per term, a distinguished visiting Fellow for a period of four to six weeks. The Fellows are selected from highly distinguished people in the arts, scholarship, science and politics who can serve as a model of inspiration to undergraduates, and communicate with students on important contemporary problems. The Fellows deliver public lectures, hold seminar conferences, dine with students and make themselves available for individual discussions. In addition, during the time the Fellow is on campus, he is interviewed by members of the faculty concerning critical aspects of his biography.

Gordon Fellowships

A subsidy from the James Gordon Grant for Government of Chicago has permitted the Department of Politics to develop a special doctoral dissertation program providing Fellowships to selected qualified candidates for the Ph.D.



Brandeis Sailing Club

degree in Politics. To be eligible, students must have completed their first year graduate work, either at Brandeis or elsewhere. The Fellowship awards are limited to individuals whose dissertations deal with approved topics within the fields of American urban and/or local political problems. Fellowships may be held for one or two years. The subsidy also provides research funds, summer stipends, and travel money for field work or investigation in connection with preparation of the dissertation.

Office of Adult Education

To provide adults with the opportunity to pursue courses of instruction in areas of particular interest to them, the Office of Adult Education sponsors daytime seminars, and evening lecture courses, all directed by members of the Brandeis faculty, and all consistent with the quality of Brandeis academic offerings. In addition, the office plans and presents a variety of special public lecture programs throughout the academic year.

Summer Institutes for Adults

The Summer Institutes for Adults seek to broaden the University's academic scope by offering a unique residence program to adults from all sections of the country. Participants may spend either one or two weeks of intensive, uninterrupted study, directed by Brandeis faculty members and supplemented by guest lecturers, on topics broadly concerned with the problems and trends of contemporary civilization.

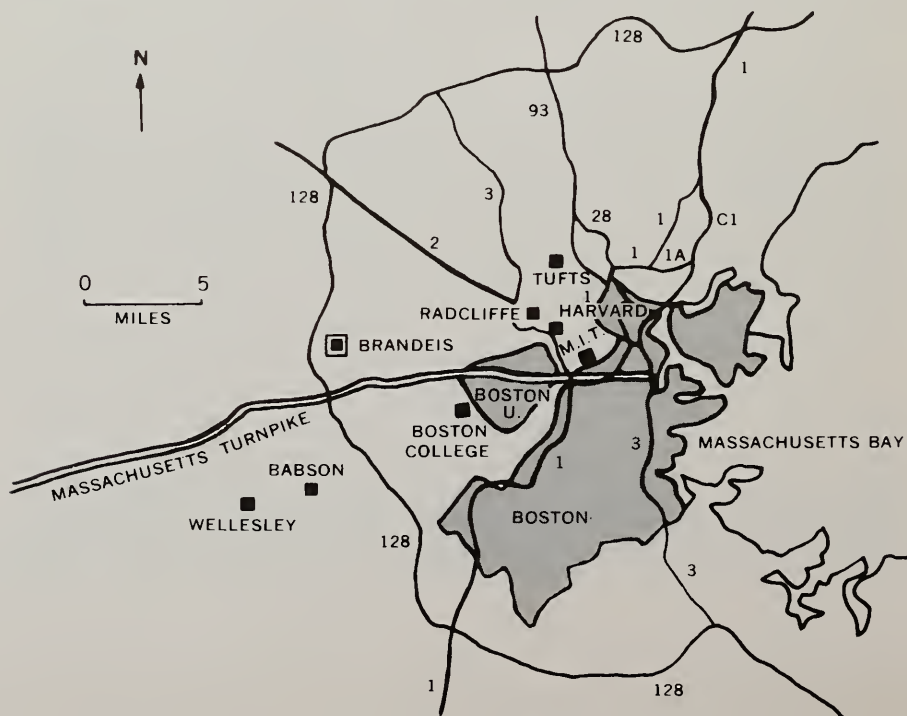
General Description

Brandeis University, on the southwest outskirts of Waltham, Massachusetts, is ten miles west of Boston, adjacent to Wellesley and near historic Lexington and Concord.

From the eastern Charles River boundary, University grounds sweep upward to New England's famed Boston Rock, where Governor Winthrop and his Massachusetts Colony explorers first surveyed the region that is today Greater Boston.

By automobile, the campus may be reached as follows: *From the south and west* take Exit 14 of the Massachusetts Turnpike and follow signs to Route 128 North, then Exit 51, left turn at end of exit ramp and follow signs to Brandeis. *From the north:* Route 128 south to Exit 51, then follow signs. *From Boston:* Massachusetts Turnpike Extension to Exit 15, follow signs towards Route 30 and Weston, right turn at Route 30, left turn at traffic light; or follow Commonwealth Avenue (Route 30), until the intersection just west of the Route 128 overpass; follow signs to Brandeis.

By public transportation: The campus is adjacent to the Roberts Station of the Boston and Maine Railroad (West Concord Line), from which trains run on a frequent schedule to and from downtown Boston (North Station) and Cambridge. Rapid Transit facilities terminate at the Riverside Station of the Massachusetts Bay Transportation Authority (MBTA), 3 miles from campus. Public bus and taxi service operate between Riverside and Brandeis.



Long distance bus travellers will find that it is much easier to alight at Riverside or Natick rather than Park Square, Boston. All Greyhound through and express buses stop at Riverside. Trailways buses stop at their Natick, Mass., terminal on Speen Street. Train travellers from the South should de-train at Boston, but train travellers from the west should get off at Newtonville, a 20-minute ride from campus on the Roberts bus. From Logan Airport, the easiest route is by taxi to North Station and from there to the Roberts stop (check train schedule first). Rapid Transit is also available from Logan to North Station.

Academic and Administrative Buildings

Abelson Physics Building

Completed in 1965, the Abelson Physics Building houses teaching and research laboratories of the Physics Department. It also includes a major physics lecture and demonstration hall.

Administration Center

Overlooking the main entrance to the campus, the Brandeis University Administration Center houses the offices of the president, vice-presidents, deans, student administration, university administration and the National Women's Committee. Conference room facilities serve the Board of Trustees, faculty and administrative staff. The Center comprises Bernstein-Marcus Administration Center, Gryzmish Academic Center and the Julius and Matilda Irving Presidential Enclave.

Bass Physics Building

A unit of the Science Quadrangle, the Bass Physics Building includes research facilities for the Physics Department as well as departmental offices.

Bassine Biology Center

The Bassine Biology Center houses all of the research activities of the Biology Department. It includes environmental growth chambers and greenhouses in addition to laboratories, laboratory support areas, preparation rooms, and seminar facilities for the use of Biology faculty and research personnel.

Brown Social Science Center

Adjacent to the library, the Brown Social Science Center includes three structures.

The central building houses the Anthropology, Economics and Psychology Departments. It contains classrooms, seminar rooms, faculty offices,

laboratories and a small anthropology museum. Glass walls overlook an attractively landscaped quadrangle which the Social Science Center encloses.

Schwartz Hall houses a 300-seat lecture auditorium, classrooms and a spacious lounge. Millions of viewers across the nation have watched television programs recorded in the main auditorium, specially equipped for use as a television studio. The lounge contains a permanent exhibit of Oceanic Art and Ethnographic objects donated to the University by Mrs. Helen S. Slosberg.

Lemberg Hall is the home of the Lemberg Laboratory-Nursery School, operated by the Department of Psychology. Classrooms with specially constructed walls of one-way glass enable students to observe youngsters in the nursery school and to record their development from the observation room. Currently Lemberg Hall also houses the Psychological Counseling Center.

Brown Terrarium

Brown Terrarium, a completely equipped experimental greenhouse, located between the Faculty Center and Sydeman Hall, provides facilities for botanical research.

Dreitzer Art Gallery

Designed as an adjunct to the art exhibition facilities of the University, the Mildred and Albert J. Dreitzer Art Gallery houses special loan exhibitions as well as periodic displays of selected art works from the University's permanent collection.



Harry Edison Chemistry Building

A center for research in Chemistry, completed in 1965, the Harry Edison Chemistry Building includes laboratories and research offices for faculty, postdoctoral research fellows and other research personnel of the Chemistry Department.

Hiatt House

Hiatt House is located in the Talbieh section of Jerusalem, near the famed Rose Gardens, a favorite attraction for visitors. The newly-renovated 10-room structure provides classrooms, offices, library and dining hall for administrators, students and teachers in the Hiatt Program. Hiatt House is sponsored by Trustee and Mrs. Jacob Hiatt of Worcester.

Faculty Center

On the south campus is the Faculty Center, containing club facilities, lounges, the faculty dining room, a private dining room for faculty meetings, and apartments for visiting faculty and lecturers.

Ford Hall

Near the central campus, Ford Hall contains classrooms, laboratories, faculty offices and Seifer Hall, an auditorium seating 500, which is used for lectures, large student meetings, and major conferences.

Friedland Research Center

Joined to Kalman Science Center by an overhead corridor of glass and stainless steel, Friedland Research Center provides four stories of modern laboratories which house research in biochemistry and related life sciences.

Gerstenzang Library of Science

The central structure of the Science Quadrangle is the Gerstenzang Library of Science. This building includes a science library and lecture-demonstration auditoria. The library contains stacks for 250,000 volumes, along with facilities for preparation and use of microfilms, a periodical room and journal reading area, office and other library administration facilities. The lecture-demonstration halls are constructed as amphitheatres, one seating 300 and the other 100. This unit is connected to all other buildings in the University's Science Complex.

Goldfarb Library Building

Near the center of the campus, Goldfarb Library Building is a brick, limestone and glass structure with an ultimate capacity of 750,000 volumes. On the periphery of its open stacks are student study carrels and faculty studies.

Seminar rooms are provided for those courses requiring intimate and immediate access to library resources in specific research and reference areas. The library also contains audio-visual aids, specialized reading rooms, typing rooms and lounge facilities. Works of art from the University collection are on constant display in the many galleries of the building.

Golding Judaic Center

Overlooking the campus from the northeast corner of the Academic Quadrangle, Golding Judaic Center contains classrooms devoted to the study of the Near East, Judaics and related subjects. Classrooms and faculty offices ring its large, central lecture hall.

Goldman-Schwartz Art Studios

The Goldman-Schwartz Art Studios provide classrooms, faculty offices and sculpture areas for the Department of Fine Arts and studios for faculty, advanced students and artists-in-residence. Its completion marked a major step in fulfilling the master plan for a unified creative arts enclave extending across the southwest campus.



Goldsmith Mathematics Center

Completed in 1965 as a unit of the Science Quadrangle, the Goldsmith Mathematics Center provides classrooms, seminar rooms, research offices, faculty offices and a mathematics library for the use of the Mathematics Department.

Hayden Science Court

The Charles and J. Willard Hayden Court, comprising several acres in the central campus area, is the site of present and projected science facilities of the University. This area has been set aside as a memorial to two generous benefactors, whose pioneer gift stimulated the extensive scientific programs of the University.

Heller School Facilities

The Florence Heller Building, completed in 1966, houses the administrative, faculty and teaching activities of the Florence Heller Graduate School for Advanced Studies in Social Welfare.

A major research center, the Benjamin Brown Building, provides research offices and work rooms for the multifaceted research programs being conducted by the Heller School.

Kalman Science Center

The University's first structure devoted entirely to science, Kalman Science Center continues to be the key facility in the growth of the University's science facilities. This center contains instructional and research laboratories for the undergraduate School of Science and for the advanced work of the Graduate School of Arts and Sciences.

Kosow Biochemistry Building

A unit of the Biochemistry Research Center located to the east of the existing Friedland Research Center and joined to the building on all floors, this building provides additional modern laboratories where research in Biochemistry and related life sciences is conducted.

Lecks Chemistry Building

Adjoining the existing Kalman Science Center, the Lecks Chemistry Building provides modern laboratories and research spaces for the expanding chemistry research program of the University.

May Memorial Hall

The Morton May Memorial Hall is a striking glass, brick and granite structure which provides office and teaching spaces for the American Civilization and Afro-Studies Departments. In addition, the building includes a spacious lounge which is a center for student meetings, colloquia and seminars.

Olin-Sang American Civilization Center

On a hillside overlooking the library and Three Chapels Area, the Olin-Sang American Civilization Center provides unique seminar-classroom halls which include display areas for the placement of original manuscripts and source materials relating to the courses offered. Included are the Diplomatic Studies, Human Rights, Lincoln, Presidential, Washington, Judicial, Legislative, Ethnic Studies and Slater Halls. The Shapiro Forum, which is the building's lecture auditorium, is patterned after the United Nations General Assembly hall.

Pearlman Hall

A circular lounge, walled in glass, is a unique architectural feature of Pearlman Hall. Its main building contains classrooms and seminar rooms and houses the Sociology Department.

Rabb Graduate Center

The rapid growth of the University's Graduate School of Arts and Sciences has made it necessary to expand the facilities allocated for Graduate School administrative activities and for graduate teaching in the humanities. The Rabb Graduate Center provides administrative and faculty offices, seminar and teaching rooms and study space for graduate students.

Rapaporte Treasure Hall

Adjacent to Goldfarb Library Building, and joined to it by a glass-enclosed lobby, Rapaporte Treasure Hall is the repository for rare books, incunabula and other library treasures. The upper level serves as the main exhibition area and the lower level stores the University's growing collection and includes a specially constructed vault with provision for the protection of these rare items against the ravages of time, temperature, humidity, fire or theft. Special display areas are built into the Rapaporte Treasure Hall.

Rose Art Museum



Rose Art Museum

Located within the Creative Arts enclave, the Rose Art Museum is the focal point for the University's rapidly burgeoning art collection. On permanent display are portions of the noted ceramic collection of Trustee and Mrs. Edward Rose. Major loan exhibitions are placed on display during the academic year as well as selections from the University's permanent collection. The wishing pool on the lower level is both a pleasant setting for quiet reverie and the objective of coin-tossing students before examinations. Construction of a major addition to the Rose Art Museum is being planned. This addition will include a special room for an expanded permanent display of the art collection of Mr. and Mrs. Rose. There will also be enlarged administrative and service areas for museum personnel. The expanded Rose Art Museum will be the dominant feature of a substantially enlarged art exhibit area at Brandeis.

Segal Physics Building

A unit of the science research center, the Segal Physics Building includes research offices for theoretical physicists, laboratories for research in physics, and newly developed research areas for investigations in high energy physics.

Shiffman Humanities Center

Atop a hillside where its glass walls reveal spectacular views of the campus and the country north of Boston, Shiffman Humanities Center employs a new academic concept in educational architecture. Original manuscripts, portraits, and source materials related to courses being offered are displayed in the seminar rooms. The latest in electronic language teaching facilities are employed in the building's language laboratory. Included are the Language and Phonetics, English and American Literature, Classics, Philosophy, Renaissance, Germanic and Asian Studies Halls.

Slosberg Music Center

Located at the entrance to the campus, the Slosberg Music Center includes classrooms, practice rooms and office facilities for the Music Department. The Center has its own music library and a recital hall which seats 250 with carefully designed acoustical treatment. Slosberg Recital Hall is the location of the University's rich program of chamber music concerts and solo performances. It also houses the University's baroque organ, given by Mrs. Aber D. Unger of Baltimore, Maryland, as a memorial to her late husband.

Spingold Theater Arts Center

The Spingold Theater Arts Center is a unique and imaginative concept translated into exciting design. With a theater auditorium as its hub, the circular Center includes areas for every facet of the teaching and performing arts; workshops, design rooms, costume preparation and storage areas, rehearsal and dressing rooms, a little theater and a dance studio. Spacious areas are equipped as classrooms and offices, and the great lobby has been envisioned for displays of painting, sculpture and other treasures. The Center's location on the southwest campus places it at the hub of Brandeis' creative arts teaching facilities.

Sydeman Hall

This annex to Ford Hall houses laboratories, classrooms, faculty offices and the University's Computer Center.

Ullman Amphitheatre

Utilizing a natural bowl below the science buildings, the Amphitheatre is the colorful setting for University convocations and commencements.

Wolfson-Rosensweig Biochemistry Building

A unit of the Biochemistry Research Center located to the east of the existing Friedland Research Center and joined to that building on all floors, this building provides additional modern laboratories where research in Biochemistry and related life sciences is conducted.

Athletic Facilities

Memphis Tract

A twenty-six acre area on the east edge of the campus, Memphis Tract contains the Shapiro Athletic Center, Marcus Field, Gordon Field and Rieger Tennis Courts.

Gordon Field

One of the nation's most modern tracks rings Gordon Field where the University's track and field squad plays host to teams from throughout the east. The central area provides playing fields for the University's intramural football teams and specialized accommodations for intercollegiate field events.

Linsey Sports Center

The Joseph M. Linsey Sports Center includes an Olympic-size swimming pool, squash courts, fencing room and other athletic teaching facilities. Connected to the athletic center, the sports center provides facilities for substantial enhancement of the University's physical education and intercollegiate athletic programs.

Marcus Playing Field

Brandeis' international student body has won respect for its soccer prowess on Marcus Playing Field, which also contains the varsity and practice baseball diamonds and a softball diamond.

Shapiro Athletic Center

Throughout the school year the main gymnasium operates day and night with varsity and intramural competition as well as physical education activities. The gymnasium is also used for public lectures, student dances and major conferences. In addition, classrooms, offices for the physical education faculty, team, and physiotherapy rooms and dressing rooms are included in Shapiro Athletic Center.

Rieger Tennis Courts

The Rieger Tennis Courts are the scene of informal as well as intramural and intercollegiate tennis competition. They are located to the rear of the Shapiro Athletic Center.

Residence Halls

Campus living accommodations consist predominantly of double rooms, some single rooms and larger quarters. Each residence hall has its own lounge or lounges. Modern laundry and other conveniences are available to all students. Each resident student should bring blankets, lamps and such rugs and decorations as are desired. Arrangements for linen and towel service may be made through the University.

East Quadrangle

The East Quadrangle residence halls include Hassenfeld House, Rubenstein Hall, Pomerantz Hall, Krivoff House and Shapiro Brothers Hall. A large central lounge serves all of these buildings, and the entire area is complemented by the Benjamin and Mae Swig Student Center which includes a dining hall and lounge facilities.



Faculty Center

Leon Court

Leon Court, a residence area, has four dormitories and a large student center-dining hall grouped around an attractive, wooded quadrangle. Each dormitory unit contains fully equipped student rooms, a lounge and large recreation room. Dormitories in this quadrangle have been designated the Scheffres, Gordon, Cable and Reitman Halls. The student dining hall is Milton and Hattie Kutz Hall.

Massell Quadrangle

Consisting of Shapiro, DeRoy, Renfield and Usen Residence Halls, and the Sherman Student Center, this is a major housing and recreational area. Each unit has functionally equipped rooms with maximum living and closet space. Ground floor lounges overlook the central quadrangle and the walks encircling Anne J. Kane Reflecting Pool.

Ridgewood Quadrangle

Emerman, Fruchtmann, Danciger, Allen and Rosen Residence Halls comprise the University's living areas for students on the south campus. Each hall has two lounges opening on the quadrangle.

Rosenthal Dormitories

Adjacent to the Massell Quadrangle, are three new dormitories, completed in 1968, which accommodate 168 students. This grouping of buildings has been underwritten by Brandeis Fellow and Mrs. David Rosenthal of New York City.

The Usen Castle

An imposing structure designed after medieval architecture and completed a decade before Brandeis was founded, the Irving and Edyth Usen Castle has been remodelled into single, double, and larger rooms for women. Its ground floor houses the student-operated coffee shop, *Cholmondeley's*. On the second level of the Usen Castle, is the Usen Commons, a circular, conservatory style lounge, used for dances and social functions. Greater Boston spreads out in a panoramic view from the windows of Usen Commons.

Schwartz Residence Hall

This companion structure to the Castle houses women. Its lounge, a retreat for reading, relaxation and entertainment, is furnished in contemporary style.

Casty House

Located in Weston, Massachusetts, a few minutes from the campus, is Casty House, residence of the President of the University. The 25-room Tudor mansion was originally gifted to the University by the late Mrs. Boice Gross and was recently renovated and will be maintained through a gift from Mr. David Casty, a Trustee-elect of the University.

Student Centers

Sherman Student Center

The glass walls of The George and Beatrice Sherman Student Center rise from the ground level to roof, overlooking Massell Quadrangle and the Kane Reflecting Pool. Its ground floor dining hall serves several hundred students daily and is frequently utilized as a banquet hall for major University functions. Along the upper level are located a large lounge, game room and two smaller dining rooms. Bulletin boards of these rooms serve as the major communications center for student activities and the walls frequently are hung with special art exhibits. Dances, parties and meetings often occupy the entire building on busy evenings.

Feldberg Lounge

Spacious and comfortable, this glass and brick walled lounge is used for informal discussions, lectures, songfests and conferences and is a favorite meeting place between classes. Works of art by student and professional artists are on constant exhibit.

Kutz Hall

A towering ceiling, attractive furnishings, a site overlooking Greater Boston, make Kutz Hall a versatile and popular student dining hall. Banquets seating 500 can be held on its main floor. An outdoor terrace and commodious balcony provide unusual settings for receptions and student social activities. Folding walls under the balcony permit creation of private rooms for dinner meetings of student or faculty groups. The towering north wall of Kutz Hall mirrors the rest of Leon Court in its more than 8000 square feet of glass.

Swig Student Center

The attractively furnished Swig Student Center, in the East Quadrangle, provides dining facilities for students as well as lounge and terrace for student receptions and social activities. It also includes a private dining room for dinner meetings of student groups. The Swig Student Center is connected to the dormitories of the East Quadrangle by an overhead walk.

Usdan Student Center

The Usdan Student Center complex incorporates, student social, cultural, and recreational facilities as well as student personnel and administrative services. The Usdan Student Center, located in mid-campus close to teaching, residence, and dining facilities, houses an assembly and banquet hall seating 1,000, the University bookstore, mailroom, campus cafeteria, and lounges and conference rooms for formal and informal student affairs. The Dean of Students' offices, including the Registrar, class advisors, and student employment and financial aid occupy the northeast wing of the building. The Center also houses student clubs and organizations, social areas, music listening and reading rooms, the campus radio station (WBRS), the Justice, and Student Council offices, as well as billiards, table tennis, and recreational areas. The main building of the Student Center has been underwritten by Brandeis Trustee and Mrs. Samuel Lemberg of New York in honor of their daughter and son-in-law, Mr. and Mrs. Nathaniel Usdan. In addition to the main building, the Usdan Student Center includes the Gluck, Rudnick, Winer and Wuliger Wings, the Faneuil Recreation Hall, and the Maurice Levin Memorial Great Hall.

Dining Halls

University dining halls are located in Kutz Hall, Swig Student Center and Sherman Student Center. A separate kitchen is maintained in Sherman for those wishing Kosher meals. In addition, light refreshments are provided in Cholmondeley's, a coffee house operated by students. The Usdan Student Center houses an ultra-modern cafeteria with a seating capacity of 375.

Stoneman Infirmary

On the forward slope of the campus, near the Castle, the Infirmary houses a first aid treatment room, lounge, out-patient clinic, four consulting suites, and rooms for twenty-four bed patients.

The Three Chapels

Assuming that worship is a matter of mood and spiritual climate, not limited to words or ceremonies, the University's Harlan, Berlin and Bethlehem Chapels serve the Protestant, Jewish and Catholic faiths. A centrally located pulpit serves a large outdoor area where shared functions are celebrated. Student organizations responsible for services are the B'nai B'rith Hillel Foundation, Newman Club and Student Christian Association. Each has its own chaplain.

Brandeis House

Located in New York City, Brandeis House, a gift of Brandeis Fellow Mrs. Frances Spingold has recently been renovated as a base of operations in New York City for the National Women's Committee, the Alumni and the Parents' Association. The Brandeis House will also include offices for the President and other University staff when in New York City. Renovation costs have been underwritten by Mr. Harry Waxman of New York City, a Fellow of the University.

Maintenance Funds

As the University's physical plant expands, the costs of maintaining buildings and grounds impose increasingly on its general fund resources. However, funds to help meet these costs have been made available through the generosity of individuals and foundations.

Louis D. Beaumont Foundation Fund

The Louis D. Beaumont Foundation of Cleveland, Ohio, has provided funds for general purposes, including maintenance, since the early years of the University.

Harry Pearlman Endowment Fund

A portion of a major gift to the University by Brandeis Fellow Harry Pearlman of New York, has been directed to building maintenance.

David and Irene Schwartz Fund

Under provisions of a special grant from Brandeis Trustee David and Irene Schwartz, funds have been provided for a systematic landscaping of the campus to achieve a harmony between the terrain's natural beauty and the building architecture as conceived and executed by some of the nation's noted architectural figures.

Facilities Projected and Under Construction

Coffman Residence Hall

Brandeis Fellow Max Coffman of Brockton, Mass., has established a fund which will enable the University to expand dormitory space in the future to keep pace with expected growth of the student body.

Epstein Campus Service Center

Underwritten by Brandeis Trustee and Mrs. Rubin Epstein of Chestnut Hill, Massachusetts, the Epstein Campus Service Center will house several administrative departments of the University, including the Purchasing Department, the Buildings and Grounds Department, and the University's major service facilities, including repair and maintenance shops and stock and storage areas.

Feldberg Computer Center

Planned for the near future is the Feldberg Computer Center, which will be a gift of the Feldberg Family of Brookline, Massachusetts. It will be located centrally on campus. This Center will house the most up-to-date computer equipment for work supporting research in life, natural and social sciences, humanities and the arts, as well as in meeting teaching and administrative needs.

Lown Near East and Judaic Studies Center

The continuing growth in emphasis on Near East, Judaic and Contemporary Jewish Studies has made it necessary to provide additional facilities to accommodate existing and projected University programs in those areas. Through a generous benefaction of Mr. Philip Lown of Newton, Massachusetts, a member of the Board of Trustees, the University has been able to plan the new Lown Near East and Judaic Studies Center. Located in the Academic Quadrangle, adjacent to the Shiffman Humanities Center, this building, will contain classrooms, seminar rooms, faculty offices, graduate study spaces, a language laboratory, an archeological studies laboratory, and an auditorium seating approximately 100 persons.

Mailman Psychological Counseling Center

The Mailman Psychological Counseling Center is a gift of Abraham and Joseph Mailman of Hollywood, Florida and New York City. When completed, the Mailman Center will house the University's psychological counselling staff. The Mailman Psychological Counseling Center will be located adjacent to the Stoneman Infirmary, fronting on South Street.



Pollack Fine Arts Teaching Center

The expanded art teaching program at the University has made it necessary to provide additional facilities. The Maurice Pollack Fine Arts Teaching Center will include studio space for the artist-in-residence, a specially designed lecture hall for teaching art history, a multi-purpose studio and photo study room, and additional faculty offices. This center will be located between the existing Goldman-Schwartz Art Teaching Center and the expanded Rose Art Museum. It has been planned as a major link between the art teaching and art exhibit areas. The Pollack Center is a gift of the Pollack Foundation of Quebec City, Quebec, Canada.

Remis International Graduate Quadrangle

In order to meet the very substantial need for housing for the University's large number of foreign students, graduate students, married undergraduate students, post-doctoral fellows and young faculty, the University has undertaken the planning of an International Quadrangle which will not only provide needed apartments, but will also become an "International Living" center, including meeting rooms, a library, recreational and social facilities. The Quadrangle, will include living quarters for approximately 300 families.

The underwriting of this project has been generously provided by Brandeis Trustee and Mrs. Harry Remis of Boston, Massachusetts. It will be located on a tract of land bordering the Charles River, and within short walking distance of the main campus.

Rosenstiel Medical Science Research Building

The Lewis S. Rosenstiel Medical Science Research Building is a major science research facility which will house all of the activities of the Rosenstiel Research Center and will offer the scientists working in the Center the most sophisticated and modern scientific facilities and equipment. Located adjacent to existing Biochemistry facilities, the Rosenstiel Building will have three floors devoted to laboratories and specialized research spaces. In addition, the building will include administrative offices, seminars, a research library, glass blowing facilities and a large instrument resource room. The Rosenstiel Medical Science Research Building, created through the largest single gift in the University's history, was made possible by Brandeis Fellow Lewis S. Rosenstiel of Miami Beach, Fla.



Sachar International Studies Center

The Center, conceived as a tribute to Dr. Abram L. Sachar, first President of Brandeis University, will include classrooms, meeting rooms, a lecture hall, a library-lounge facility, administrative office spaces for all international programs, faculty offices, and the office of the Chancellor of the University. Underwriting for this facility has been provided by gifts from a large number of individuals as tribute to Dr. Sachar. The lecture hall has been underwritten by Brandeis Fellow Mrs. Evelyn Silver of Northboro, Massachusetts; the library by Fellow and Mrs. Jack Lazar of New York City and an imposing outdoor terrace by Fellow and Mrs. Edward Goldstein of Boston, Massachusetts.



The College of Arts and Sciences

Admission of Students

General Principles

The Committee on Admissions makes its selection of new students each year on the basis of merit, admitting those individuals whom it believes to be best prepared, academically and personally, for the University's educational program and most likely to contribute to and profit from the life of the Brandeis community. Although it chooses a class varied in its interests, talents and experience, it uses no quotas of any kind—geographic, racial, religious or economic.

In its evaluation of candidates, the Committee on Admissions weighs evidence of accomplishment and development; school and teacher statements based on previous study and experience; relevance to the application of any test results and impressions gained through the application and from an interview.

Admission is granted for September only. The University has no summer or evening courses of study and does not enroll any part-time degree candidates.

Admission Requirements for Freshman Candidates

(For schedule of application and admission procedures, please see page 49)

To be considered for freshman admission, a candidate should be completing *as a senior* a college preparatory course in a secondary school leading to graduation. Veterans or others with equivalency diplomas or special school backgrounds should write directly to the Dean of Admissions regarding their interest and experience.

An adequate course in preparation for Brandeis should include four years of English, three years of a foreign language, including study during the senior year, whenever possible, (two years each of two languages is acceptable but less desirable), three years of college preparatory mathematics (prospective science concentrators should present a year of advanced mathematics), at least one year of science (chemistry, physics or biology) and one year of history. The remaining courses up to the number required for graduation should generally be in traditional college preparatory studies. It is recognized, however, that courses in the creative arts are of value to students intending to concentrate in these fields in college.

The Scholastic Aptitude and Achievement Tests of the College Entrance Examination Board are regarded by the Committee on Admissions as one of several factors in a candidacy and as a method of evaluating the qualifications of candidates from different schools and areas. All candidates must take the Scholastic Aptitude Tests and three Achievement Tests in: a) English Composition; b) a foreign language; c) mathematics or a science. Results of Scholastic Aptitude and Achievement Tests taken between and including May of the junior year and January of the senior year are preferred for consideration. In exceptional circumstances, and on request only, the Committee may accept for consideration senior year scores from the March testing date.

Full information concerning testing may be obtained from secondary school guidance counselors or directly from the College Entrance Examination Board, Box 592, Princeton, New Jersey 08540 or Box 27896, Los Feliz Station, Los Angeles, California 90027. The candidate should direct the Board to report his scores to the Dean of Admissions.

A personal interview, on campus whenever possible, is considered mutually desirable since it affords the opportunity for clarifications and answers regarding the University, the discussion of any special concerns or areas of interest and the occasion to meet undergraduates and to visit facilities, departments and classes. Interviews are generally not scheduled until June 15 preceding the senior year.

Advanced Standing

Work at Other Institutions of Higher Education

In September, petitions for exemption from specific courses may be made to the Council Chairman of the appropriate school (e.g., Humanities) for recommendation to the Administrative Committee of the Faculty. Petitions are initiated through Class Advisers in the Dean of Students Office.

Advanced Placement

Brandeis University participates in the Advanced Placement Program of the College Entrance Examination Board. The exam qualifying score (i.e., 3, 4, or 5) necessary to receive credit is recommended each year by the appropriate department to its School Council. Up to four credits may be granted for the equivalent of a semester course at Brandeis. Fewer credits may be granted at the discretion of the department and its School Council. Departments may allow Advanced Placement examinations to fulfill prerequisites and requirements for departmental courses. Requirements for the General Education Program may be met with work completed through Advanced Placement as approved by the appropriate School Council. Students wishing to have their Advanced Placement Examination Record considered must request the College Entrance Board to forward a report to:

Coordinator of Advanced Placement
Office of the Dean of Students
Brandeis University
Waltham, Massachusetts 02154

Students who demonstrate prior preparation (e.g., college level courses taken at high school) may petition the appropriate department to administer an examination in order to obtain advanced course placement and/or Brandeis credits. Examinations which the departments agree to administer and evaluate must be taken within the first semester of residence. The examination cannot be taken after a student has had an advanced course in the same subject.

The amount of advanced placement credit awarded to either freshmen or transfer students is not limited. However, the rule of the two-year residency requirement (64 credits at present) for the Brandeis degree will apply.



Admission Requirements for Transfer Candidates

(For schedule of application and admission procedures, please see page 49.)

The Committee on Admissions welcomes applications from individuals whose promise and prior attainment is in keeping with the opportunity for a continuation of concentrated scholarly study at Brandeis. Whenever possible, applicants will be granted a supplementary interview with a faculty member in their area of academic interest. Some financial aid is reserved annually for transfer candidates.

Transfer admission is limited to sophomore or junior standing only and is granted solely in keeping with the University's degree requirement of a minimum of *two years* of full-time study. To be considered for admission, a candidate should present in applying evidence of good standing, academically and personally, in his preceeding college and sound reasons for wishing to transfer.

In its selection of transfer candidates, the Committee on Admissions gives major consideration to the quality of college level work completed and some consideration to further evidence of promise for achievement at Brandeis based on the secondary school record, personal evaluations by the appropriate dean and by a professor, testing, and information or impressions conveyed by the candidate. Candidates should submit at least Scholastic Aptitude Test scores from testing completed during secondary school or no later than March of the year of application.

Schedule of Application and Admission Procedures

	<i>Freshman Candidates</i>	<i>Transfer Candidates</i>
Request for application and current catalog	After July 1	same
Application filing period (admission <i>and</i> financial aid)	Sept. 15–Feb. 1	Sept. 15–March 1
Application fee (non-refundable, to be filed with application)	\$15.00	\$15.00
Interview Calendar:		
<i>On-Campus</i> (Office of Admissions)	June 15–Feb. 15 9:30 A.M.–3:30 P.M. Weekdays only	June 15–March 15 same

On-campus appointments should be requested a month in advance by telephone or by written suggestion of alternate dates for visiting. Directions for reaching the campus are provided in the General Description section of this bulletin.

<i>Off-Campus</i> (Closest major city) (Appointment must be requested before Feb. 1)	Feb. 15–March 15	same
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In the event that an interview does not take place due to geographical distance from any interviewing point or because of transportation, weather, health, expense or scheduling factors, a candidacy will be considered complete and will be given full consideration.

General mailing date for decisions	On or about April 15	On or about June 1
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Brandeis has no Early Admission or Early Decision programs.

Deadline for filing Reservation Fee	May 1	2 weeks after mailing of decision
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The address for the forwarding of all inquiries, materials and test results is:

Office of Admissions
Brandeis University
Waltham, Massachusetts 02154

Telephone: 617-894-6000, Extension 250

Fees and Expenses

Financial Regulations

Students are permitted to attend classes only after all financial obligations have been met or satisfactory terms of payment have been arranged with the Controller's Office. Payment arrangements must be made prior to September 4, 1970 and January 15, 1971. Payments received after the due dates will be subject to a penalty charge of \$10.

Reports of grades or transcripts of records will be issued to students only after all financial obligations to the University have been discharged.

Any student who has not cleared his financial obligations or made satisfactory financial arrangements with the Controller's Office will be denied the privileges of attending classes and using University facilities.

Each application for freshman or transfer admission must be accompanied by a fee of \$15. All application fees are non-refundable and cannot be credited toward other fees.

A Reservation Fee of \$50 must be filed by each candidate upon notification of acceptance. This fee reserves a place in the class and is credited toward the first semester tuition bill. If the student fails to enroll or withdraws his application, the Reservation Fee is not refunded.

Tuition*

The tuition fee for 1970-71 is \$2,650 and the fee for each half course required for degree credit is \$331.25. Those students who are awarded financial assistance by the University and who need to take extra courses may request the Director of Financial Aid to authorize appropriate increases in their awards.

Costs of medical-health care for the academic year, health insurance coverage for twelve months, library privileges and use of athletic facilities are included in the full tuition fee.

Students who return to the University after withdrawing will pay the prevailing tuition and other fees and all students are cautioned that increasing educational costs may make at least one tuition increase likely during their academic careers.

Every student must satisfy his financial obligations in full to the University before he shall be considered eligible for graduation.

* The tuition fees listed in this catalog represent, at the present time, approximately thirty-eight percent of the actual cost of providing full educational opportunities for each student for a single academic year. The remainder must be met by the University from general funds made available by benefactions and other special gifts.

Transcript Fee

Students are entitled to one formal transcript of their academic work without charge. A charge of \$1 will be made for each subsequent transcript. The student will pay the transcript fee in advance at the Cashier's Office (Bernstein-Marcus Administration Building). Transcripts will be issued only to those students whose financial record with the University is clear.

Residence Fee

The residence fee for room and board for the 1970–71 academic year is \$1250. Each entering freshman must mail a deposit of \$50 to the University with his completed residence contract, the form for which will be sent to the student during the summer. Returning upper-class students must make their advance deposits during the spring room drawing. Upper-class students who fail to notify the Residence Office by June 1 of their intent not to honor their room reservations will forfeit their advance room deposits.

Resident students must sign room and board contracts binding for the full academic year.

The fee for board is based on a 21-meal per week dining hall contract. Alternative meal contracts and the costs thereof are being studied and announcement of contract options will be made by the Office of the Vice President and Director of Environmental Affairs.

Non-resident students may eat in the University dining halls on a cash basis.

Other Fees

Other fees are charged for the following:

1. Each change of course after the initial two weeks of each semester, \$5. Such changes must have the approval of the Administrative Committee of the Faculty.
2. Late registration, \$10.
3. Makeup examination, \$5.
4. Late payment, \$10.
5. Late filing of study card, \$10.
6. Seniors are charged a \$10 graduation and diploma fee.
7. A fee, which varies according to the specific course involved, is charged for laboratory supplies.
8. Student activity fee, \$50, permits students to enjoy free admission to Student Council sponsored social and cultural activities during the academic year.

Schedule of Payment of Bills

	First Semester September 4, 1970	Second Semester January 15, 1971
Tuition	\$1325*	\$1325*
Residence fee	625	625
Other (senior graduation fee, laboratory charges, room damages, etc.)	As rendered	

Payment Plans

While it is the responsibility of the parent or guardian to arrange the settlement of his financial obligations to the University, and while many parents find it most convenient to meet such costs directly out of their own funds or through local banking arrangements, payment programs are offered to the parents of our students by the University and by the New England Merchants National Bank of Boston. Questions regarding the University's program should be directed to the Controller, while questions on the New England Merchants National Bank program should be addressed to the bank.

Refunds

A student who leaves the University without the approval of the Administrative Committee of the Faculty, or who is suspended or dismissed from the University, is not entitled to any refund.

When the Administrative Committee of the Faculty grants a leave of absence or allows a student to withdraw during a semester, that student may receive a refund of charges in accordance with the following:

1. Tuition:

Withdrawal: Before the opening day of instruction: 100% of semester tuition.

On or before the second Friday following the opening day of instruction: 75% of semester tuition.

On or before the fifth Friday following the opening day of instruction: 50% of semester tuition.

After the fifth Friday following the opening day of instruction: no refund.

2. *Scholarships:* In the case of a scholarship student who withdraws, the student's account will be credited with the same proportion of the semester scholarship as charged for tuition: 25% if the student leaves on or before the second Friday; 50% on or before the fifth Friday; and, 100% thereafter. The balance of the scholarship will be cancelled.

* Plus extra course fees, if any.

3. *Room Charges*: No refund of room charges will be granted on or after the day on which dormitories are opened for residence.

4. *Board*: Refunds will be made on a *pro rata* basis from the end of the week in which a student withdraws.

The date of withdrawal or leave will be considered to be the date approved by the Committee.

All refunds are subject to review and final approval of the Controller and will be disbursed by him upon written request.

Financial Aid

Introduction

Generous friends and alumni of Brandeis University have made funds available to undergraduate students for financial assistance in the form of gift-aid grants and loans. This assistance is administered through the Office of Financial Aid. The Director of Financial Aid is responsible for implementing policy determined by the Committee on Admissions and Financial Aid, which is composed of members of the faculty and administration. The Director administers grant and loan funds of the University and provides a clearing house for information on financial aid from sources outside the University.

Brandeis awards aid to approximately one-quarter of its undergraduates annually. Financial aid awards are made as a combination of grant and loan to students who qualify on the basis of financial need, academic achievement and promise, and outstanding personal qualities. The amount of each award is always based on individual financial need. No student, however superior, will be made an award unless there is evidence that he could not attend Brandeis without financial aid. Since the number of qualified applicants exceeds the number who can be helped from established funds, competition for financial aid is keen, and many fine students who are admitted must be refused aid each year.



Costs

Expenses at Brandeis vary from student to student, but an average student expense budget for 1970-71 is as follows:

	Resident	Commuter
Tuition and fees	\$2650	\$2650
Student activities fee	50	50
Board and room	1250	350
Books	135	135
Clothing, laundry, recreation, incidentals	450	450
Travel and lunches	*	300
	\$4535	\$3935

Determination of Awards

The Committee on Financial Aid assesses each student's financial situation on the basis of the computation system established by the College Scholarship Service of the College Entrance Examination Board. This assessment takes into account family income and assets, age of parents, financial commitments to other dependents and members of the family, and other special circumstances. It is expected that a student's resources for education will come first from family resources and his own savings and earnings. The total amount of student and family resources is subtracted from the total student budget to arrive at a figure for estimated financial need. When the Committee makes an award it is generally in the amount of a student's remaining financial need.

Freshman Awards

Each applicant for freshman financial aid must file both the Brandeis Financial Aid Application and the Parents' Confidential Statement of the College Scholarship Service. The Parents' Confidential Statement may be obtained from the applicant's high school guidance office or from the College Scholarship Service, Box 176, Princeton, N. J. 08540; Box 881, Evanston, Ill. 60201; or Box 1025, Berkeley, Calif. 94701. Applications for financial aid cover all grant and loan funds administered by the University, including National Defense Loans.

* A reasonable allowance should be budgeted for travel between the University and the student's home.

Any student who feels he might need financial aid during any part of his four years at Brandeis should apply for aid as a freshman. A student should not expect to receive an award as an upperclassman if he has not received aid as a freshman. The University attempts to renew aid to any freshman who has need as an upperclassman and whose academic record and personal record are satisfactory. Thus, extra funds are not usually available for upperclassmen applying for the first time.

Because of the University's limited funds, not all students who apply for aid will be made an award. Students who have financial need but have not been made an award from the University should be sure of being able to finance four years at Brandeis before accepting the offer of admission. A student might expect to earn and borrow from sources outside the University as much as \$1500 a year for his education, but this still leaves a sizable gap in expenses. Because of the academic demands of the University, a student cannot depend on working more than ten to fifteen hours a week to earn his expenses.

Awards are made on the assumption that the student is receiving no outside grants or other special gifts, even though he may have listed anticipated awards or gifts on the Brandeis Financial Aid Application or Parents' Confidential Statement. If a student receives grants or gifts from other sources, anticipated or not, he should report promptly the sources and amounts to the Office of Financial Aid. In cases where the amount of outside financial support amounts to a considerable percentage of the Brandeis award or exceeds it, the University may adjust its award in order to release funds to another applicant who is in need of aid. It is imperative that the University have a record of all financial assistance received by Brandeis students from sources outside the University.

Because of limited funds, students admitted from the Waiting List should not expect to be offered financial aid.

Renewal of Awards

Financial aid is ordinarily renewed for the succeeding academic year for students whose financial need continues and whose academic and personal record at the end of the year are worthy of consideration for continued assistance. A new Parents' Confidential Statement and Brandeis application must be filed each year.

The Committee on Financial Aid assesses each upperclassman's application and makes an award that can vary from year to year depending on the circumstances of the applicant and his family. If the family financial situation remains constant, each applicant should expect his award to decrease by an amount corresponding to the increase in the amount he is expected to provide through earnings, as shown in the table following.

The grant portion of an award ordinarily does not exceed tuition and fees if the student lives off campus.

Foreign Students

Students from foreign countries (other than Canada, whose citizens qualify for regular undergraduate financial aid) are eligible to compete for Wien International Scholarships (see pp. 17-60). These scholarships are rarely awarded at the freshman level. Preference is given to students who, having completed the equivalent of the first year (or two) of university work in their home countries, can qualify for admission to Brandeis on the sophomore (or junior) level.

Employment

All financial aid recipients are expected to contribute to the cost of their own education both from future earnings, as represented by loans, and from summer and part-time employment. The Committee on Financial Aid builds into each student's budget a certain amount of resources from the student as expectation from earnings.

Expectations from Earnings

Year	Summer	<i>Men</i>		Summer	<i>Women</i>	
		Part-Time	Total		Part-Time	Total
Freshman	\$450	—	\$450	\$400	—	\$400
Sophomore	500	\$250	750	450	\$250	700
Junior	550	300	850	500	300	800
Senior	600	350	950	550	350	900

It should be noted that the Committee considers the above figures as a reasonable average expectation from earnings. Students may earn more or less in any particular time period, or may compensate for reduced earnings by economizing on individual budget items. The Committee, however, bases its awards on the average expectations shown above.

College Work-Study Program

In the Educational Opportunity Act of 1964 and the subsequent Higher Education Act of 1965, federal assistance was authorized to provide additional employment for selected college students who have financial need as determined by the Office of Financial Aid. These jobs generally offer the same rates of pay as other undergraduate employment and are considered in the normal earnings expectation of each student. Application for all part-time and summer employment may be made through the Office of Student Employment.

Loans

Awards are made as a combination of grant and loan, and some loans are National Defense Student Loans. The full Parents' Confidential Statement and Brandeis Financial Aid Application must be completed by every student. There is no separate application for loans.

Loan amounts vary. Students can expect the amount of loan in their package to increase as they attain upperclass status.

If a student refuses the loan portion of his award in any year, the Committee may adjust his award in future years with the understanding that, since the loan awarded was considered necessary to meet his total need and the student refused the loan, the Committee may have overestimated his need. If a family chooses to borrow from another source, or if a student earns more than he is expected to during a year, these are appropriate reasons for refusing a loan. Future awards probably would not be reduced because a student declined a loan for reasons such as these.

Terms of Loan Plans

Brandeis University Loans

Brandeis has limited loan funds that are supplemented by National Defense Student Loan funds. While a student remains enrolled at Brandeis University, no interest is charged and no repayment of principal is required.

The repayment period on Brandeis University loans begins one year after date of graduation or withdrawal from the University, and ends six years after such date, except under the conditions given in the next paragraph. Simple interest at the rate of 3 per cent per annum accrues from the date of graduation or withdrawal. Repayment of principal, together with interest, is to be made in equal annual installments.

Upon written application to the University, installments need not be paid during any period (a) during which the borrower is carrying, at any institution of higher education, at least one-half the normal full-time academic workload, as determined by Brandeis University or (b) not in excess of three years during which the borrower is a member of the Armed Forces of the United States or serves either as a Peace Corps or VISTA volunteer. Any such period in (a) or (b) shall not be included in determining the six-year period during which repayment must be completed.

National Defense Student Loans

National Defense Student Loans are authorized and administered by the University, which contributes 10% of each National Defense loan.

Any student at Brandeis University with financial need who is a United States citizen or permanent resident, who is carrying at least one-half the normal full-time academic workload as determined by the University, and who is willing to take and subscribe to an oath or affirmation that "I do solemnly swear (or affirm) that I bear true faith and allegiance to the United States of America and will support and defend the Constitution and laws of the United States against all its enemies foreign and domestic" may be considered for a loan for the payment of tuition and required fees, board and room, and similar living expenses and for institutional equipment, materials and books, under Title II of the National Defense Education Act of 1958.

As in the case of the Brandeis University long-term loan program, applications are considered by the Financial Aid Committee, and, as funds permit, loans are granted to students who are in satisfactory standing and can demonstrate financial need, with preference given to students whose gross family income is \$10,000 or less.

While the student remains enrolled at Brandeis University, no interest is charged and no repayment of principal is required. The repayment period begins nine months after date of graduation or withdrawal from college, and ends ten years and nine months after such date. Simple interest at the rate of 3% per annum accrues from the beginning of the repayment period. Repayment schedules are drawn up on a quarterly basis, and a minimum principal payment of \$45.00 per quarter is required.

If the student goes on to graduate school in this country or in certain approved foreign institutions and carries at least one-half the normal full-time academic workload, he may apply for postponement of the beginning of the repayment period until nine months after conclusion of his graduate studies. If he carries less than one-half the normal full-time academic workload, he may apply for deferment of repayment of the required installments for a period, or periods, aggregating not more than three years while he is in such part-time attendance at the institution taking courses creditable toward a degree (or its equivalent in an approved business or technical institution). Interest, however, continues to accrue during any such period, or periods, of part-time attendance. If the student enters military service, the Peace Corps or VISTA, he may apply for deferment of required payments of principal and accrued interest for up to three years while in such service, using Status Form OE 4141.

In addition to assisting needy students to continue their education, the National Defense Student Loan Program has another purpose: to encourage borrowers to enter teaching. To this end partial and full cancellation benefits for teaching service are available. Information pertaining to eligibility, regulations, and procedures for obtaining cancellation is obtainable from the Loan Secretary in the Accounting Office.

Financial Aid to Transfer Students

A limited amount of financial aid is available for students entering Brandeis as transfer students from other institutions of higher education. Applicants who could not afford to attend Brandeis without financial assistance should submit the application for financial aid to transfer students that is enclosed with the admission application. The application for financial aid is due at the same time as the application for admission. Since funds for transfer students are limited, transfer applicants should thoroughly explore alternate plans for financing their education at Brandeis.

Questions about Brandeis University financial aid policies and procedures for undergraduates should be addressed to the Director of Financial Aid.

Student Affairs

Office of the Dean of Students

The Office of the Dean of Students has general supervision over the status of all undergraduate students. It executes the decisions of the Administrative Committee of the Faculty. Selection of academic fields of concentration as well as faculty and class advising are coordinated by the Dean's office.

The Dean and his staff provide academic, career and personal counseling for undergraduates. In addition, financial aid, employment and career planning, registration, study assistance, and religious activities are matters with which the Office of the Dean of Students is concerned. An Assistant Dean of Students is available specifically to help minority group students.

The Administrative Committee

The Administrative Committee of the Faculty reviews academic records after midyear and final return of grades, prepares the Dean's Lists, grants leaves of absence, withdrawals and readmissions and enforces the academic regulations of the Faculty. The Dean of Students is chairman of this Committee, which has eight faculty members and three administrators as voting members. *Students who wish to petition the Committee must do so through their Class Adviser in the Office of the Dean of Students.*

The Environmental Committee

This Committee is charged with formulating new rules and regulations guiding student conduct and with identifying and making recommendations in areas where change in the environment is needed. Its members consist of four members of the faculty, four students and four administrators, including the Dean of Students and the Director of Residence.

Office of the Registrar

The Office of the Registrar (Usdan Student Center) secures and maintains the official records of students. This office conducts registration, enrolls students in courses, arranges the schedules of classes and administers midyear and final examinations. Students who have class or examination conflicts should consult the Office of the Registrar. Petitions for permission to take either half of a whole course for credit may be obtained at this office early in January of each year. Petitions for permission to take courses at summer schools for credit toward the Brandeis degree may be filed at this office in the spring of each year. At the end of each year students receive a report of their grades and of their progress toward the degree. This office issues the official transcript of the University on request and it serves as the liaison office between students and Selective Service Boards and the Veterans' Administration.

Office of International Programs

This office administers the Wien International Scholarship Program (see page 17), the Jacob Hiatt Institute in Israel (see pages 19, 80), and the Abram L. Sachar International Coordinated Degree Program (see page 18).

It serves as the counseling center for the nearly two hundred students who come here from Asia, Africa, Europe, and South America. It advises students of special social and educational activities and provides assistance in

fulfilling the legal procedures required by the U.S. Immigration Service, i.e. in obtaining permits to work and other documents necessary for extended periods of study.

In addition, the office advises on Study Abroad (see page 80) and on foreign grants available through the Fulbright, Rhodes, Sachar, and Watson scholarship and fellowship programs.

The Office of Career Planning

The Office of Career Planning assists undergraduates, graduate students and alumni with their graduate and career plans. Information on graduate and professional schools, fellowships and scholarships, graduate and professional school catalogues, lists of off-campus part-time jobs, listings of permanent positions, civil service opportunities, and work and travel opportunities abroad are on file in the Office of Career Planning for the use of all students and alumni.

The career library, which is part of the office, has occupational information, company literature and directories useful in finding summer and career positions. The staff of the office coordinates the visits to campus of employment recruiters and graduate and professional school representatives. Students are encouraged to visit the office early in their academic careers in order to familiarize themselves with the resources available and to discuss employment opportunities, future plans and graduate school requirements.

Office of Student Employment

The Office of Student Employment assists students who need and desire part-time work. Students seeking part-time work should register with the Office of Student Employment. New students are not assigned part-time work prior to arrival on campus. Students are cautioned against working more than eight to ten hours per week, and freshmen should seriously consider the wisdom of seeking part-time employment until they are certain that they can fulfill their academic responsibilities.

The on-campus, part-time student rate of pay is \$1.60–\$2.20 per hour. Students can expect to earn from \$200 to \$400 per year. Brandeis participates in the College Work-Study Program, which helps to provide additional part-time and summer employment both on and off campus for students with financial need.

The Office of Financial Aid

The Office of Financial Aid administers the undergraduate scholarship and loan programs. It also provides advice and counsel on matters pertaining to personal financial situations. The Director of Financial Aid is available to assist in planning a budget to help meet the expenses of Brandeis over the four undergraduate years, and can provide specific information on scholarships and loans from Brandeis and outside sources.

Student Government

Brandeis students consider themselves a part of a community dedicated to the advancement of liberal values, the enrichment of life experience and the deepening of learning. Organized as the Brandeis Student Union, they consider it their prime responsibility to create a democratic student organization, to increase the flow of new ideas and to provide enjoyable and creative recreational and cultural activities for all students.

The Student Union is the assembly of the entire student body. The Student Council, consisting of elected officers and elected representatives from each class, meets weekly to conduct its business and supervise its programs. One of its major responsibilities is the collection and allocation of the Student Activities Fee.

Honor Societies

Phi Beta Kappa

Phi Beta Kappa, for more than a century and a half, has fostered liberal education and has supplied a national criterion for the recognition of students of scholarly promise and attainment.

With the installation of the Mu of Massachusetts Chapter in 1962, Brandeis University became the youngest independent institution authorized to form a chapter of Phi Beta Kappa since the 18th century. Elections of members-in-course, alumni members and honorary members, based upon scholarly attainment and distinction, take place at the end of the academic year. Seeking to stimulate scholarship and creativity, the society sponsors a competition to select and reward the best essay on any subject written in the course of study at the University.

Delta Phi Alpha

In 1962, a chapter of Delta Phi Alpha, the national German honorary fraternity, was established at Brandeis. Students are elected to Delta Phi Alpha on the basis of excellence in the study of German.

Omicron Delta Epsilon

Omicron Delta Epsilon is the Brandeis Chapter of the National Honor Society in Economics. It was established in 1963. It stimulates and promotes student interest in all aspects of Economics and confers distinction for high scholastic achievement in Economics.

Sigma Xi Club

The Brandeis Sigma Xi Club was authorized in 1961 by the national Sigma Xi organization, an honorary scientific society devoted to the encouragement of understanding of the advances and aims of scientific investigation. The local group is composed of faculty and staff members of the departments of Biology, Biochemistry, Chemistry, Mathematics, Physics and Psychology. Each year the society sponsors a series of general lectures on scientific topics open to the entire Brandeis community.

Office of the Vice President and Director of Environmental Affairs

The Vice President and Director of Environmental Affairs directs and coordinates all University functions and offices charged with responsibility for the non-academic aspects of the total campus environment, including the offices and services listed below and on the following pages:

Residence

The undergraduate college is essentially a residential college. As a general practice, freshmen students whose parents do not reside in Greater Boston are expected to live in University residence halls. Upperclass students are permitted to live off-campus on application to the Residence Office. In addition, students under 21 years of age must receive parental consent for off-campus residence.

Campus living accommodations consist predominantly of double rooms, some single rooms and larger quarters. Each residence hall has its own lounge or lounges. Laundry machines and other conveniences are available to all students. Each resident student should bring blankets, pillows, lamps and such rugs and decorations as are desired. Arrangements for linen and towel service may be made through the University.

The residence halls are grouped into six living areas ranging in size from one hundred and fifty to four hundred students. Each of these areas is under the supervision of a resident quadrangle director. Graduate resident counselors aid in the administration of residence halls. Resident staff members are available to provide assistance to residents on academic, personal and social matters.



Student Publications

Student publications are *The Justice*, a newspaper edited and managed entirely by students to cover matters of campus interest, *Folio*, a department-run literary magazine, and *The Review*, a student magazine drawing from classwork in the humanities and social sciences. A yearbook is published annually by the Yearbook Club in cooperation with the Student Union. *The Brandeis Student Handbook*, published annually by the students and the University, contains useful information on the University and its adjoining communities.

Student Organizations

A variety of student organizations exists for all who are interested. Organizations are open to any matriculated student on the basis of competency or interest. No exclusive or secret societies may be organized.

Co-curricular activities include the Anthropology Film Group, Art Club, Biology Club, Chemistry Society, Classics Club, Economics Club, German Club, Humanist Club, Music Club, Philosophy Club, Physics Club, Russian Circle and Psychology Club.

Religious activities are centered in the Three Chapels and are conducted by the five student religious organizations, the Hillel Foundation, Newman Club, Student Christian Association, Student Religious Liberals and the Student Zionist Organization.

Musical, dramatic and dance activities include a band, orchestra, Folk Music Club, International Folk Dance Group, Israeli Folk Dance Club, Gilbert and Sullivan Society, Modern Dance Group and the Choral Union. An original student production of a musical comedy is presented each year by the Hi-Charlie Association and the proceeds used for a student scholarship.

Other special interest groups are the African Circle, Afro-American Organization, Athletic Committee, Bridge Club, Campus Americans for Democratic Action, Chess Club, Committee for an Ideal Campus, Cycling Club, Dionysian Society, Draft Counseling Group, Film Club, Folk Music Group, Hort-a-cultural Society, International Club, Karate Club, Latin American Society, Linguistics Club, New Politics Club, Outing Club, Photography Club, Pre-Dental Society, Pre-Law Society, Pre-Medical Society, Sailing Club, Ski Club and Student Film Society. There are four community service groups: Brandeis Civil Rights Group, Brandeis Mental Health Association, Teacher Aide Program and the Waltham Group.

The campus radio station, WBRS-FM, is owned by the University and operated solely by the students. The station is licensed by the FCC to transmit on 91.7 MC to the Greater Boston community. A broadcasting schedule exceeding forty hours per week includes programs of information, entertainment and public service.

The Brandeis Debate Society offers a program of training for interested students. The University supports this activity by providing professional coaching. Novice and varsity debaters are selected to represent Brandeis in intercollegiate competition organized around the annual national debate topic.

The University Health Services

The Director and his staff are responsible for providing for the physical and emotional well-being of students. Payment of the health fee, now included in the tuition, entitles students to services available at the David A. Stoneman Infirmary and at the Psychological Counseling Center, currently located in Lemberg Hall. In addition, the student is entitled to participate in the Student Health Insurance Plan. Except for limited day-care facilities, the Health Services and the use of the Infirmary are available to students only during the period in which the University is in regular academic session.

Prospective students planning to matriculate in the College and the Graduate Schools are responsible for the submission of a Health Examination Report completed by their family or personal physician. In addition to information about previous health and details of the physical examination, evidence of immunization against smallpox and tetanus are required. If possible, protection against poliomyelitis is desirable. Since students may not register until these requirements have been satisfied, it is strongly recommended that reports be submitted by July 1.

The Student Health Insurance Plan helps to defray expenses for a period of one year, commencing September 1, for care situations which are beyond the scope of the Health Services. A brochure outlining the details of the Plan as well as the services offered by the University Health Services is distributed

to each student at registration and copies are mailed to parents. Students and parents are urgently requested to read this brochure and keep it for reference. Whereas situations not covered within the Health Services or by the Insurance Plan are infrequent, an awareness of these possibilities will tend to lessen misunderstanding and disappointment. In such instances students and their parents will be responsible for expenses which are not covered by the University health program or its associated insurance policy.

The Psychological Counseling Center

The Psychological Counseling Center, which is a part of the University Health Services, is currently located in Lemberg Hall. It provides professional assistance to students who have personal or emotional problems. Those who wish such help may refer themselves directly to the Center. Their communications with the staff are held in strict confidence.

Athletic Activities

Recognizing the importance of athletics in a sound college educational program, Brandeis University offers a wide variety of organized sports. All aspects of college athletics, however, are subordinate to the essential educational purposes of the University. The athletic program exists for the welfare of the students and for the contribution it can make to their educational experience. A physical examination is required before participation in any organized sport.

The University fields varsity teams for men in soccer, basketball, baseball, fencing, wrestling, lacrosse, cross-country, track, tennis, golf, sailing and swimming. Women engage in varsity basketball, tennis, fencing and softball. The varsity squads compete against teams representing colleges and universities which regard athletics in the same spirit as Brandeis University. Playing on a home-and-away basis, Brandeis teams have scheduled competition with teams from the Midwest, the South and New England. Brandeis is a member of N.C.A.A., New England Athletic Conference, Eastern Collegiate Athletic Conference, and the Greater Boston Collegiate Athletic Association. All home athletic contests are played on the campus at Gordon Field, Marcus Field, Rieger Tennis Courts, Shapiro Athletic Center and the Linsey Sports Center.

Believing in the value of athletic participation for both conditioning and relaxation, the University maintains a full array of intramural programs. Competitions are organized in various sports on a volunteer-team basis. The

men's intramural program includes flag-football, basketball, softball, tennis, table tennis, swimming and wrestling. Residence hall and commuter teams have also been organized in these sports, with the competitive aspects subordinated to the enjoyment of the game. The Women's Physical Education Department sponsors the Women's Athletic Council, organized by the students.

Bookstore

The new University Bookstore in the Usdan Student Center is owned and operated by the University for the convenience of its students. It is open Monday through Friday from 9:30 a.m. to 4:30 p.m. The Bookstore is able, through its close association and coordination with all academic departments and faculty members, to offer students a comprehensive stock of textbooks and paperbacks correlated with the academic program and with the students' personal interest. School supplies, health and beauty aids, records and gift items may also be purchased at the Bookstore.

Mailroom

The Campus Mailroom is located in the Usdan Student Center. All student mail is delivered to the Campus Mailroom and a separate mail box is maintained for each student. From 11 a.m. to 5 p.m. Monday through Friday and from 11 a.m. to noon on Saturday, all services are provided, including the sales of stamps and money orders, registry of mail and the handling of parcel post packages.

Security and Safety

Established as a separate University campus service in November 1969, the Department of Security and Safety is now located at Room 1-A, Sydeman Hall. Responsibilities of this twenty-man special police force embrace campus-wide security/safety patrol, traffic control and enforcement of University driving/parking regulations, protective custody of University offices, classroom/dormitory areas and professional inquiry into incidents involving theft, trespassing, and related matters. Special emphasis of the Department is placed upon preventive and protective care for all members of the University community.

Automobile Regulations

The University will not permit freshmen to maintain motor vehicles on campus. All other students must register their vehicles with the Department of Security and Safety (Sydeman 1-A) and must observe University Traffic and Parking Regulations.

Academic Regulations

Rate of Work

A degree candidate is required to take four courses each semester. A freshman required to take English Composition must take four other courses at the same time. A student may take five courses in any semester without paying an additional fee and without obtaining special permission. Permission to take other than four or five courses a semester may be granted only by the Administrative Committee of the Faculty and in exceptional circumstances. Petitions for such permission must be approved by the student's faculty adviser and class adviser and must be filed in the Office of the Dean of Students.

Changes in Courses

A student must file his final study card two weeks after the beginning of each semester. Any student who thereafter wishes to make a change in his program must file, at the Office of the Registrar, a course change form bearing the written approval of the instructors concerned and of his faculty adviser. A fee of \$5 will be charged for each program change. No student may enter a course after the fourth week of the semester.

A student who wishes to withdraw from a fifth course without academic penalty must notify the Registrar by the last day of the semester on which a class in that course is given and pay a fee of \$5.00.

Auditing

A student who wishes to audit courses must secure the permission of the instructor.

Class Standing

In 1970-71 the minimum number of credits required for advancement to each class will be as follows: sophomore 24; junior 56; senior 88; graduation 126. In 1971-72 and the years following, the minimum number of credits required for advancement to each class will be as follows: sophomore, at least 24 credits; junior 56; senior 88. The minimum number of credits required for graduation will be 128.

Attendance

Any student in good standing except a freshman has unlimited cuts, provided the student completes the work in his course to the satisfaction of the instructor. A faculty member may, however, require attendance at his course, and every assignment must be completed even if the student has been officially excused for the period. Students on warning are permitted three cuts per course, each semester. *Students on probation are permitted no cuts.*

A freshman, unless on warning or probation, is permitted three cuts per course each semester. If on warning he is permitted no cuts.

Classes begin at ten minutes after the hour and end on the hour. Tardy students may be marked absent at the discretion of the instructor.

Official excused absences are granted only by the Office of Dean of Students.

A student absent from classes because of illness must consult the University Health Office before resuming attendance. Each student must abide by the rules governing excused absences for medical reasons as described in the Health Office pamphlet.

Reading Period

An instructor, with the approval of his Department Chairman or Interdepartmental Committee Chairman and the Dean of Faculty, may institute a reading period in advanced courses. A reading period is a two-week period, immediately preceding final examination, during which no classes are held. A student works on assigned course material not covered in class sessions. The reading period material will be dealt with in the midyear and final examinations.

Grades

Grades will be reported to the Office of the Registrar four times a year. In determining these grades all components of the student's work in a course will be considered: written work, recitations, laboratory technique and reports, special reports or research and all examinations.

The following grades will be used with plus or minus where appropriate:

A—High Distinction B—Distinction C—Satisfactory

D—Passing, but unsatisfactory E—Failure.

The letters "S" (Satisfactory) or "U" (Unsatisfactory) may be used as the midsemester reporting system for undergraduates. The regular letter grades will be used for final grade reporting and evaluation, and these grades will reflect the semester's work. Regular letter grades will be given in the spring midsemester in year courses.

In any semester a student may take one course on a pass-fail option. He may not take more than one course pass-fail at any one time. The Registrar will place the pass or fail on the student's academic record. A student may elect to submit no more than two half courses of his General Education requirements through the pass-fail option. The number of pass-fail courses which a student may take is restricted to a total of four half courses. The status of pass-fail courses with respect to concentration requirements is determined by the department or committee administering the relevant field of concentration.

The numerical equivalents of the grades as determined by the Faculty are:

A	4.0	B	3.0	C	2.0	D	1.0
A—	3.7	B—	2.7	C—	1.7	D—	.7
B+	3.3	C+	2.3	D+	1.3	E	0.

The Registrar reports midyear and final grades to students in writing. Instructors notify students of midterm grades.

Examination Attendance

In each course the same requirements for arriving at grades apply to all students. Students who are absent from midyear or final examinations must petition the Administrative Committee of the Faculty through their Class Advisers for permission to take a makeup examination.

If a student is absent without excuse from a term-end examination and the Administrative Committee does not grant a makeup examination, the student will be given a grade of zero on the examination. The instructor will be instructed to supply a grade for the course. If, after six weeks, the instructor fails to do so, the Registrar will enter a failing grade on the student's record.



A student is expected to complete his work in each course before the beginning of the examination period. If a student receives, with the consent of the faculty member involved, an official excuse from the Office of the Dean of Students for failure to complete a major assignment by that time, the instructor submits the mark "Incomplete." The work must be made up and a formal grade reported to the Registrar no later than six weeks after the beginning of the following semester. If such work is not completed at the required time and no official excuse is offered, the instructor gives a failing grade for the assignment.

Should a student not complete other required academic exercises such as laboratory assignments, minor papers, or quizzes, and if the absence or noncompliance is excused, the instructor in charge of the course may, at his discretion, require the work to be made up or not count the assignment in determining a grade. When there is no satisfactory excuse for the incomplete work, the instructor may, at his discretion, record a failing grade.

Academic Status

A satisfactory record for a term may contain no more than one D and no E. At the end of the Fall Term, the Administrative Committee of the Faculty announces two Dean's Lists of honor students. The minimum records expressed in half courses which qualify for the two Dean's Lists are as follows:

<i>Dean's List I</i>		<i>Dean's List II</i>	
3 A, 1 B	2 A, 1 B, 1 P	4 B	3 B, 1 P
		1 A, 2 B, 1 C	1 A, 1 B, 1 C, 1 P

At the end of the Spring Term based on the academic record of the *entire year*, the Administrative Committee again announces two Dean's Lists. The minimum records expressed in *whole* courses are as follows:

<i>Dean's List I</i>		
3½ A, ½ C	2½ A, 1½ B	2 A, 1 B, 1 P
<i>Dean's List II</i>		
4 B	1 A, 2 B, 1 C	3 B, 1 P

No student will have his name placed on the Dean's List who has a D or more than one C on his record for the period.

In order to be eligible for the degree a student must compensate for any D beyond two with an A or a B.

The Administrative Committee will notify a student and his parents in writing whenever his grades are unsatisfactory. When there are extenuating circumstances, no further action is taken. A student whose record is not low enough to incur probation is placed on warning, a disciplinary status. He



will be placed on probation at the next grading period unless his work is then satisfactory. A student is placed on probation when his record is seriously unsatisfactory. Such a student will be in danger of dismissal unless his record shows marked improvement. A student's connections with the University are severed if his record is so unsatisfactory that the Administrative Committee considers him unable to meet the academic requirements.

Withdrawal from the University

A student wishing to take a leave of absence or to withdraw from the University must consult the Office of the Dean of Students. Clearance by all appropriate administrative offices and approval by the Administrative Committee of the Faculty are necessary.

Dismissal or Severance

The University reserves the right to dismiss or exclude at any time students whose conduct or academic standing it regards as undesirable, and without assigning any further reason therefor; neither the University nor any of its Trustees or officers shall be under any liability whatsoever for this exclusion.

As a matter of standard procedure, but not of right, the University will give due notice and, if requested, a hearing before the Administrative Committee of the Faculty to any student whose severance from the University for other than academic reasons is under consideration. It is understood that the Student Board of Review will receive notice, will be allowed to advise the involved student, and will be allowed to make a representation to the Administrative Committee of the Faculty on behalf of the student.

Requirements for the Degree

A student is required to be in residence at Brandeis for four academic years. Work done in advance placement programs or in summer school programs or work given transfer credit from other universities may contribute to a reduction of the residence requirement.

The student is required to engage in a program of general education and to pursue a coherent program of study within a field of concentration. The General Education program embraces major elements in the three areas: the Humanities and the Arts, Social Science and Science.

General Education Requirements

English Composition Requirement

In his first semester a freshman is required to take a Freshman Writing Seminar unless exempted. This is a non-credit, fifth course. Exemption is based on high school records, essays, and Advanced Placement, SAT and College Achievement scores. In addition, students may be exempted on the basis of an essay examination that may be taken during Orientation Week. For a description of this course, see Freshman Writing Seminar under Courses of Instruction.

Foreign Language and Literature Requirement

The foreign language and literature requirement for the degree may not be postponed and must be completed within three years of matriculation through the satisfactory completion of the introductory literature course (10 or 100), or two semester courses at a more advanced level, or one semester course at a more advanced level if so placed, in one of the following languages: French, German, Greek, Hebrew, Italian, Latin, Russian, Spanish, Swahili and Yiddish. Students who by placement need offer only a semester advanced course to meet the requirement also must pass an *additional* semester course chosen from the Humanities Courses listed below. The foreign language and literature requirement may also be met with a score of 3 or higher on the appropriate Advanced Placement Examination. Failure to meet the foreign language and literature requirement within the stipulated period may cause the student to be placed on probation.

Humanities

A student must pass a year course or two semester courses from the following: Humanities 1, 2a,b, 4a, 4b, 6, 9b, 13a, 14a, 14b, 15a, 61b, English 15b, 45b, 191a, 191b, Philosophy 1, 13a, 17a.

Creative Arts

A student must pass a semester course from the following: Music courses numbered below 50 except for Music 5b; Theater Arts 1, 115b, 122a, 123b, 125b, 165; Fine Arts History Courses numbered below 100.

Social Science

A student must pass three semester courses including at least one from each of the following two groups:

Group I: Afro-American Studies 2a; Anthropology 2a or 3b; History 1a, 1b, 51a, 51b; Politics 1a, 1aR.

Group II: Afro-American Studies 1a and b; Anthropology 1a, 15a, 19b; Economics 1a, 1b; History of Ideas 15a; Politics 11b, 12b, 13b, 14b; Psychology 1a, 2a; any undergraduate Sociology course not in the 90's.

Students concentrating in American Civilization, History, or Politics must pass two semester courses in Group II. Students concentrating in Economics, Psychology or Sociology must pass two courses in Group I.

Science

A student not concentrating in the School of Science must pass three semester courses from at least two of the following groups:

Group I: Biological Science 1b, 2a, 3a, 3aR; Biology 10.

Group II: Chemistry 1a, 10a, 11a, 11b, 15a, 15b, 16b.

Group III: Mathematics 1a, 1b, 10, 11, 12.

Group IV: Physical Science 1a, 1b, 2a, 2b; Physics 10, 11.

Other Freshman Requirements

Freshmen who feel that the placements in specific courses which have been assigned to them at registration are not appropriate or satisfactory, should consult the advising chairman of the department concerned.

Elective Courses

A freshman may not enroll in courses numbered 90 or above unless he presents to the Registrar the written consent of the instructor in the course, the Chairman of the Department, and his faculty adviser, or is placed in a higher numbered course in accord with existing University procedures.

Physical Education

Every freshman must enroll in Physical Education whether or not he or she is an athlete, has a medical excuse, is a veteran or has previously fulfilled a Physical Education requirement elsewhere. All students must complete required work in Physical Education as part of their degree requirements. These requirements include participating two hours per week in class for two semesters and a required swimming test. Physical Education classes for men consist of instruction in flag football, basketball, volleyball, bowling, tennis, golf, badminton, wrestling, softball and swimming. Women's classes consist of field hockey, body mechanics, fencing, golf, tennis, dancing, bowling, archery, badminton, basketball, softball and swimming.

Concentration Requirements

General Requirements

To obtain a Bachelor's degree in the College of Arts and Sciences a student must complete the requirements of a field of concentration. Before the end of his freshman year each student will choose a provisional field of concentration after consultation with a faculty adviser in that Department. An entering student who has reached a tentative decision regarding his future field of interest should elect the basic introductory course in this area in his freshman year and cover more of the groundwork in the elective courses of his sophomore year.

Certain departments permit qualified students to substitute a limited number of related courses in other fields for their concentration requirements. Such an option would permit a student to pursue an area of study not represented by a single department. This program is open only to students able to present a purposeful and coherent course of study. Before approval, individual requests are subject to rigorous examination by the student's department. Students should consult individual departmental listings.

Completion of a Field of Concentration

To enroll in courses fulfilling his concentration requirements, a student must have received a C— or better in prerequisite courses.

A 2.0 (C) average is normally required in courses offered for completion of requirements for concentration.

Degrees with Honor

A student whose grade point average at the end of the junior year is 3.0 or above in his field of concentration may petition the department concerned for permission to work for honors in his field of concentration. Departmental distinction is awarded by each Department or Interdepartmental Committee.

The awards of *Cum Laude* and *Magna Cum Laude* will be based on a grade point average set by the Faculty.

The award of *Summa Cum Laude* will be based upon a grade point average set by the Faculty *and* on the award of distinction in the field of concentration.

School of Creative Arts

Requirements for concentration in each department are listed on the pages indicated.

	<i>Page</i>
1. Fine Arts	128
2. Music	159
3. Theater Arts	202

Candidates for honors must have the approval of the appropriate department.

School of Humanities

The School of Humanities offers the undergraduate a systematic introduction to our literary and philosophical heritage. Requirements for concentration and honors are listed on the pages indicated.

1. Classics	107
2. Comparative Literature	110
3. English and American Literature	119
4. English and Classics	125
5. French	132
6. German	136
7. Linguistics	151
8. Mediterranean Studies	156
9. Near Eastern and Judaic Studies	164
10. Philosophy	169
11. Russian	192
12. Spanish	199

To be eligible for honors work, a candidate, at the end of his junior year, must have obtained an average of 3.0 or better in his field of concentration and an average of 2.0 in all other courses. He must also have the approval of the department in which he wishes to take honors.

School of Science

The School of Science provides the student with the basic scientific training to qualify him for entry into graduate school or for work at the intermediate level in his scientific field. The student is encouraged to take such courses outside the School of Science as will best broaden and further his intellectual growth. Requirements for concentration are listed on the pages indicated.

1. Biology	97
2. Chemistry	103
3. Environmental Studies	126
4. General Science	135
5. Mathematics	152
6. Physics	174

To be eligible for honors work, a candidate, at the end of his junior year, must have obtained an average of 3.0 or better in his field of concentration and an average of 2.0 in all other courses. He must also have the approval of the department in which he wishes to take honors.

School of Social Science

Requirements for concentration are listed on the pages indicated.

1. African and Afro-American	83
2. American Civilization	86
3. Anthropology	92
4. Economics	113
5. History	139
6. Latin American Studies	149
7. Politics	178
8. Psychology	185
9. Sociology	194
10. Urban Studies	206

A student in the School of Social Science who is a candidate for a degree with honors will, in addition to the designated requirements for the several fields, also enroll in senior research (99). Candidates for honors must have the approval of the appropriate department. One reader of a senior thesis must come from outside the department of concentration.

Pre-Professional Training

The Brandeis curriculum does not develop patterns of courses conceived with specific vocational goals in mind. The Brandeis student receives a broad education in the liberal arts and sciences which will prepare him for further study in specific professional and vocational fields at the graduate level. On the premise that a liberal arts education is the best preparation for professional training, the College of Arts and Sciences does not recommend highly specialized courses for pre-professional students.

Pre-Medical and Pre-Dental Students

The Council on Medical Education and Hospitals of the American Medical Association has established three years of college training for the average student as a minimum educational requirement for students entering medical schools and strongly recommends that pre-medical students take the full, four-year college course. The Council and Association of American Medical Colleges have also prescribed a set of minimum requirements for admission to an approved medical school. These requirements include general and organic chemistry, physics, and biology. The Brandeis student can meet them with the following courses: Biology 10, Chemistry 10a,b or Chemistry 15a,b, Chemistry 25a,b, Mathematics 10 or 11 or 12, and Physics 10 or 11 plus Physics 19c.

These are *minimum requirements*. Many medical schools require more than the specified minimum in certain areas. In order to insure that such additional or specialized requirements can be met in proper sequence, a pre-medical student should arrange his prospective college program with the faculty adviser for pre-medical students.

In evaluating candidates for admission, medical schools attach considerable importance to recommendations by faculty committees before which each student generally appears in his junior year. A potential candidate should arrange his schedule, whenever possible, to assure that he has taken or is in the process of taking the courses generally required as listed above at the time he appears before the Brandeis Committee on Recommendations to Medical and Dental Schools.

Most medical schools advocate a broad liberal arts education in addition to specific course requirements. The medical schools do not advocate any specific field of concentration to undergraduates, and the field of concentration is not a determining factor in admission to medical schools so long as the specific course requirements of that medical school are met. While many pre-medical students concentrate in biology, chemistry, or general science, concentration in the fields of humanities, social sciences, or creative arts allows ample electives to satisfy the requirements of most medical schools.

The same observations apply in large part to the pre-dental student or those planning careers as veterinarians, medical technicians, or practitioners in related fields. Medical schools and dental schools require an aptitude examination ordinarily taken by the student in the spring of his junior year.

Preparation for Teaching

While the University does not have a field of concentration in education, it offers a program which fulfills Massachusetts' requirements for teacher certification and at least partially fulfills those of other states as well. A student interested in preparing for a career as a teacher in primary or secondary schools should inform himself of certification requirements in the state where he plans to work and should consult the faculty adviser on education.

Brandeis University participates in the Twenty-nine College Cooperative Plan of the Harvard University Graduate School of Education, created to encourage liberal arts college graduates to enter teaching careers. A student recommended for admission by a member college is given priority in admission and is eligible for the scholarship funds designated for the Plan.

Other Pre-Professional Students

Other pre-professional students should consult the faculty advisers designated to counsel students in the fields of law, engineering, business administration, social work, and religion.

Off-Campus Study

Summer School Credit

A student may attend daytime summer schools of six weeks or more conducted by accredited colleges and universities for credit toward the bachelor's degree. Each course must be approved in advance by the academic department concerned, the student's faculty adviser, and the Administrative Committee. Only work of honor grade (A or B) will receive credit. A student may earn no more than twelve credits in one summer nor more than twenty-four credits toward the degree. Petitions to the Administrative Committee for summer-school credit are handled through the Office of the Registrar.

Students who wish to enroll for credit in summer study abroad programs must petition the Administrative Committee of the Faculty for permission in advance of enrollment. The Committee must be satisfied that the course or courses the student intends to take for credit are of good quality and that grades and credits can be ascertained before permission is granted.

Study Abroad

A student may receive credit toward his Brandeis degree through participation in educational programs abroad that have been approved by the Administrative Committee of the Faculty, on the recommendation of the Study Abroad Committee. This Committee may permit qualified students to enroll in overseas programs of American universities, or in special cases to pursue individual programs of study at foreign universities.

The Committee has recognized for credit toward the Brandeis degree Junior Year programs in Austria, Denmark, England, France, Germany, Greece, Israel, Italy, Spain, Switzerland, Sweden, and Thailand sponsored by such universities as Sarah Lawrence, Smith, Syracuse, Hamilton, Sweetbriar, and N.Y.U. as well as the Institute of European Studies. In addition, Brandeis has exchange programs with the Universities of Sussex in England, Los Andes in Colombia, and Ife in Nigeria. Moreover, under the Abram L. Sachar International Coordinated Degree Program, established in honor of the University's first president, outstanding students may study at a number of other foreign universities. For additional information, see page 18.

Students interested in such opportunities may receive information from the Study Abroad Adviser, Office of International Programs.

The Jacob Hiatt Institute in Israel

Under provisions of this Brandeis program, a qualified student may be permitted to study in Israel in the summer and fall semesters following the sophomore (or junior) year. Qualified students who have completed at least two years in residence at other colleges or universities may be admitted to the program.

Applications, which must be received by March 1 of the year in which admission is sought, should be sent to the Hiatt Institute, c/o the Office of International Programs, Brandeis University.

The Hiatt Institute is devoted primarily to the study of contemporary Israel, its history and its social and political institutions. (Plans are now underway to add in 1972 a spring semester devoted to the Humanities.) Students are based in Jerusalem, but there is considerable travel and local study in all parts of Israel and into every phase of Israeli life. Intensive instruction in Hebrew is provided during July and August. The major courses of instruction, of which three are required of each student, are conducted in English. On satisfactory completion of the program, each student is awarded sixteen semester-hour credits.



Hiatt Students in Jerusalem

Academic prerequisites preferably should include introductory courses in Political Science and in Sociology. The courses offered are Hebrew, Modern Jewish History, Israeli Political Institutions and Israeli Social Institutions.

A University-appointed director administers the Hiatt Institute in Israel, supervises the courses of studies, arranges living accommodations with Israeli families in Jerusalem, plans lectures, tours, visits with Israeli officials and has overall supervision of the program abroad. The comprehensive fee for the six-month program is \$2,000, which includes two-way transportation to Israel, room and three meals, tuition and medical care. Financial aid is available usually in the form of scholarship-loan combinations, on the basis of financial need and academic qualifications.

Courses of Instruction

The undergraduate courses of instruction under the faculty of arts and sciences are listed below. Courses meet for three hours a week unless otherwise specified.

- a fall semester course
- aR identical course given in spring semester
- aA full course in fall semester—eight credits
- b spring semester course
- bR identical course given in fall semester
- bB full course in spring semester—eight credits
- c semester course meeting throughout the year
- H Jacob Hiatt Institute course

Semester courses normally carry four credits and year courses, eight. Exceptions are noted under the individual course descriptions. Additional credits are given for laboratory hours, as indicated in the course description. Certain science courses require a "c" laboratory course taken concurrently.

A student may take either half of a year course for credit with the approval and consent of the course instructor, the faculty adviser, and the registrar, on forms obtained at the Office of the Registrar. Certain courses, for example the 1 and 2 courses in any foreign language, cannot be dropped with credit at the end of the first semester.

The University reserves the right to make any necessary changes in the offerings without prior notice.

African and Afro-American Studies

Assistant Professors RONALD WALTERS, (*Chairman*), RAY A. SHEPARD; Lecturers HUSSEIN M. ADAM, MARY L. SMALL, IONE VARGUS, JOSEPH WARREN (*Visiting*).

Nature of the Program

In general, the department is divided into three programs.

Program A: deals more substantially with the black community and offers an opportunity for student field placement aimed at direct contribution to viable programs and analysis of important issues.

Program B: is oriented toward restructuring of the black intellectual tradition and therefore emphasizes a basic understanding of black history and culture.

Program C: Pan-Africanism is directed toward an analysis and understanding of those black communities which exist essentially outside the United States of America.

Requirements for Concentration

a) All concentrators are required to take AAAS 1a and 1b.

b) Those electing Program A must take three additional courses which are AAAS 140a, 142b, 99, and six others from the general departmental offerings. The substance of 99 will be a research project required to be completed by the senior year.

c) Those electing Program B must take AAAS 2a, 3b, 99 and six others from the general departmental listing. The substance of 99 will be a thesis required to be completed by the senior year.

d) Those electing Program C must take AAAS 2a, 150, and 99, together with any combination of six additional courses or study in a Pan-Africa area. The substance of 99 will be a special research project to be completed by the senior year.

e) In Programs A, B, and C, courses taken in addition to those required will be selected in conformity with students' overall program to be designed with the assistance of a faculty adviser.

f) Candidates for degrees with distinction, in addition to the established academic standard, must meet other criteria in the process of being established by the Department.

AAAS 1a,b. Introduction to Black Studies

This introductory course will study the black experience from a new perspective in the Social Sciences and Humanities. As such, it will examine various elements of that experience using the convenience of existing disciplinary categories, with particular attention to the major concepts and bibliography within each.

Mr. Walters and Staff

AAAS 2a. African History

This course covers major themes and trends of African Kingdoms in the Sudan and elsewhere, the slave trade, the scramble for Africa, colonialism, migration, and the rise of racism, the growth of new African towns, negritude and African nationalism, and Pan-Africanism.

Prerequisite: Permission of instructor.

Mr. Walters

AAAS 3b. The Black Historical Tradition

This course will examine the period from the first arrival of blacks in the colonies up to the present time, using textual material from such writers as Rayford Logan, John Hope Franklin, and Joanne Grant, and including pertinent documents.

Mr. Walters

AAAS 99. Directed Research

This course is primarily for juniors and seniors who are engaged in writing either their research project or their thesis in fulfillment of the Departmental requirement for concentrators.

Staff

AAAS 100b. Racism in America

This course will analyze attitudes at the individual, group, community, and systematic levels. The myth of race, the exploitation of black people by whites, and the systematic inequities built into the phenomenon of racism will be studied.

Mr. Warren

AAAS 101a. The Black Family

The central theme in this course is that the black family can best be understood when viewed as a varied and complex institution within the black community, which is in turn gravely influenced by the racism in the wider society, and by its ethnocentric and other value systems.

Prerequisite: AAAS 1 or permission of instructor.

Mrs. Vargus

AAAS 104b. Black Life Styles through Music

The analysis of African-American music helps to give insights into the social, religious, and psychological values which are not easily caught in other contexts. This course will examine the function and meaning of the music, its idioms and characteristics, growth, and development.

Prerequisite: Permission of instructor.

Mrs. Vargus

AAAS 110a. Black Communication: Swahili I

This course will consist of essentials of grammar, basic vocabulary, and practice in reading and speaking the most widely used indigenous African language. Swahili's genetic relationship to other Bantu languages and its contacts with non-Bantu language groups and with Semitic languages will also be discussed. Swahili will also be used to emphasize alien aspects of African culture.

Staff

AAAS 110b. Black Communication: Swahili II

Continuation of AAAS 110a.

Prerequisite: AAAS 110a.

Staff

AAAS 112a and b. Black Communication: Swahili X

This course will present a survey of Swahili literature with some emphasis on Swahili poetry. However, the subject matter of the readings may be determined by the needs of the class.

Prerequisites: AAAS 110a and b.

Mr. Adam

AAAS 120a. Imperialism and Protest

This course attempts to analyze comparatively the white domination of Africa and Afro-America—its theory, history and current politics, and the natural response in terms of the politics of black protest.

Prerequisites: AAAS 1 and permission of instructor.

Mr. Adam

AAAS 122a. Black Political and Social Thought

A study of the modern ideological currents within the black experience, through an approach based on intellectual history and political analysis; major figures and movements of thought among Africans and Afro-Americans will be closely examined.

Prerequisite: AAAS 1 and permission of instructor.

Mr. Adam

AAAS 123b. Black Ideologies: Seminar

An intensive reading and research seminar concentrating on selected black thinkers and ideological movements. Open to departmental concentrators and others by special permission of instructor.

Prerequisite: AAAS 122a, unless waived by permission of instructor.

Mr. Adam

AAAS 124b. Black Revolution

This course is designed to ask a number of pertinent questions about the phenomenon of the black revolution such as: What conditions produced it? What is its substance? How is it made? What are the goals? When is it most likely to occur? The answers to these and other questions will be developed by the students with the assistance of the thoughts of others who have considered aspects of this problem.

Prerequisites: AAAS 1 and 3b and permission of instructor. *Mr. Walters*

AAAS 130a. Black Literature

The course will examine black American thought, as it is expressed in reaction to the psychological and social pressures imposed upon it by the larger, more powerful, white ethnic groups. Although the emphasis will be on the creative writing of black Americans, for the purpose of comparison and of a broader and clearer perspective, students will be instructed in the works of African (mainly English-speaking) and Caribbean writers.

Prerequisite: AAAS 1. *Mr. Shepard*

AAAS 130b. Black Literature

A continuation of the analysis of the black intellectual tradition, this course will examine more intensively than the previous semester the raw materials peculiar to the formulation of a tenable and distinct black point of view.

Prerequisite: Permission of instructor. *Mr. Shepard*

AAAS 132b. African Literature

This course is an introduction to African literature in English and French (English translations of Africans will be utilized) by selected African authors. Novels, poetry and drama will figure among the works chosen to discuss certain themes, trends, and movements such as Negritude and to make references and comparisons with Afro-American literature. (A reading knowledge of French is not required.)

Mr. Adam

AAAS 140a. The Black Community: Seminar I

The course will examine, through a comparative approach, the growth of the African-American communities. The student will be directed toward sharpening his skills of interaction and analysis.

Prerequisites: AAAS 1 and permission of instructor. *Mrs. Vargus*

AAAS 142b. The Black Community: Seminar II

This field experience is an opportunity for the student to put into practice the skills and knowledge gained in 140a in his analysis of problems and progress in the black community by being attached to some viable community organization as an intern in a work situation.

Prerequisite: Permission of instructor. *Mrs. Vargus*

AAAS 150a. The Black World

The black experience is to be found in all the major continents of the earth and as such needs critical examination to discover the method of implantation, the techniques of community and nation-building, and the nature of the response to socio-economic status. This examination will refer to the developing theory of the black Diaspora first put forth by W. E. B. Dubois.

Mr. Walters

American Civilization

Professor LAWRENCE H. FUCHS (*Chairman*); Professors MAX LERNER, PAULI MURRAY; Assistant Professors JACOB COHEN, WILLIAM M. GOLDSMITH (*Student Adviser*), PETER WITT.

Nature of the Program

An interdisciplinary approach to myths, values, ideas, institutions, and behavior in the United States. Students work closely with the staff in developing an individualized plan of study by the end of the sophomore year or early in the junior year. An extensive senior paper which is required of all concentrators comes as the culmination of the last two years of study.

Special opportunities will be provided for supervised field work for some students.

Requirements for Concentration

A. Required of all Candidates: (a) History 51a, 51b; (b) American Civilization 10a or b; (c) American Civilization 98a or b or American Civilization 99; American Civilization 99 may be substituted for 98a or b with the approval of the student adviser; (d) the equivalent of six semester courses from those listed below.

B. Additional requirement, degrees with distinction: American Civilization 99.

AMERICAN CIVILIZATION 8a. American Literature from 1832 to 1900

See English 8a.

Mr. Swiggart

AMERICAN CIVILIZATION 10a,b. Problems in American Civilization

A broad survey of the major problems for study in contemporary American civilization and introduction to the trans-disciplinary approach. Copious bibliography; visiting lecturers from the several departments participating in the American Civilization concentration (Art, Economics, History, Literature, Politics, Psychology, Sociology). Students will produce a prospectus for the study of a particular problem, worked out with his adviser. All sophomore advising will take place in conjunction with this course.

Available to concentrators.

Messrs. Cohen, Goldsmith and Staff



AMERICAN CIVILIZATION 15a. Theories of American Civilization

A critical survey of theories of American civilization by the major writers on it from Crèvecoeur and Tocqueville to Eldridge Cleaver. *Mr. Lerner*

AMERICAN CIVILIZATION 85a. Strategies for Educational Change*AMERICAN CIVILIZATION 85b. Strategies for Educational Change**

Exploration and evaluation of current attempts at reform and change in American education through readings, discussion, and field work. Students, whenever feasible, will observe and work on a regular basis in such places as curriculum development centers, private corporations, and innovative public and private schools.

Open to American Civilization majors and a limited number of others in the Education Program. To be taken the semester after practice teaching. *Mr. Witt*

AMERICAN CIVILIZATION 98a,b. Readings in American Civilization

Independent reading, research and writing on a subject of the student's interest, under the direction of a faculty supervisor.

Available to juniors and seniors with the permission of the Chairman. *Staff*

AMERICAN CIVILIZATION 99. Senior Research

Seniors who are candidates for degrees with distinction should register for this course and, under the direction of a faculty supervisor, prepare a thesis on a suitable topic. *Staff*

AMERICAN CIVILIZATION 110b. The Growth of Presidential Power

A seminar examining the historical growth of the presidency as the central focus of power in the American political system. Particular emphasis will be placed upon the historical situations and political, economic and social conditions which led to this development, and countervailing theories and forces which view it with alarm.

Seminar and individual tutorials, limited to 20.

Mr. Goldsmith

***AMERICAN CIVILIZATION 111a. The Structure of Power and the Political Process**

An examination of the nature and structure of power in American society and its relation to the political process. Both local community and national power structures will be analyzed, with the emphasis being placed upon the changing nature of both social and political institutions in America.

Seminar and individual tutorials, limited to 20 students.

AMERICAN CIVILIZATION 112bR. Strategies of Political and Social Change in America

An examination of several periods in American history when major social and political changes emerged in response to widespread dissatisfaction and protest. The emphasis will be placed upon tracing the relation between social criticism and protest and the implementation of political policy and reform. *Mr. Goldsmith*

* Not to be given in 1970-71.

AMERICAN CIVILIZATION 120a. Women in American Society
(formerly 140a)

Consideration of the legal and social status of women, historical background of their struggle for equal rights, their contributions to American culture and re-examination of their identity and role in a changing society. Relevant materials in the field of history, psychology, sociology, literature, religion and law will be explored.

Miss Murray

AMERICAN CIVILIZATION 120b. Civil Rights and the Black Experience
(formerly 140b)

An examination of the historical contribution of Negro protest to the development of expanding concepts of constitutional rights and liberties in the United States. The study of the Black Americans for equality will include an evaluation of civil rights legislation, governmental policies and judicial decisions, a consideration of the ideologies and strategies which have accomplished this struggle and its relationship to other social movements for human rights.

Miss Murray

AMERICAN CIVILIZATION 122a. American Architecture and Painting

See Fine Arts 122a.

Mr. Bernstein

AMERICAN CIVILIZATION 124a. The University in American Society
(formerly 125a)

A critical examination of the development of the university as a center of learning in American society, its evolving functions and objectives in a changing society.

Mr. Goldsmith

AMERICAN CIVILIZATION 125a,b. History of American Drama

See Theater Arts 125a,b.

Mr. Matthews

AMERICAN CIVILIZATION 130a. American Legal System

An introduction to legal processes in the United States which includes consideration of the nature and functions of law and examination of judicial, legislative, and administrative processes in the resolution of social conflicts (*e.g.*, labor disputes, racial tensions, political dissent). Cases and materials will be drawn from judicial decisions, statutes, official reports and current news media. A few students may be placed for supervised field work in law.

Miss Murray

AMERICAN CIVILIZATION 130b. Law and Social Change

A continuation of 130a, which seeks to evaluate the legal processes in the United States as tools to achieve social reforms. Discussion will include the development of the law within the context of contemporary social issues such as racial justice, equal rights for women and participation in decision-making. A few students may be placed for supervised field work in the law.

Miss Murray

AMERICAN CIVILIZATION 140a,b. Introduction to Film: The Documentary

See Theater Arts 140a,b.

Messrs. Westphal and Silver

*AMERICAN CIVILIZATION 150a. Afro-Americans in the United States

* Not to be given in 1970-71.

AMERICAN CIVILIZATION 150b. The Family in the United States

Depending on size, this course may be offered in two sections.

An historical examination of the origins, manifestations, and consequences of the distinctive features of middle-class family life in America; the idealization of the family of procreation; precocity in small children; sibling conflict; adolescent rebellion; the independence of unmarried females; the ambiguity of male authority; the assertiveness of married women; the anxieties of motherhood; and the embarrassments of old age. This seminar will be conducted as a workshop. Sociological, psychological, literary, and artistic materials will be utilized. Limited enrollment in both sections.

Mr. Fuchs

AMERICAN CIVILIZATION 169a. Religion and Ethnicity in American History

A study of the sub-cultural values and styles of the major ethnic and religious groups in confrontation with the culture-religion of Americanism. An examination of the process of the conflict, accommodation, and acculturation. This seminar will be conducted as a workshop. Sociological, psychological, literary, and artistic materials will be utilized within an historical framework.

Mr. Fuchs

AMERICAN CIVILIZATION 170b. Americans Overseas

Problems of inter-cultural contact and conflict for Americans in Asia, Europe, Latin America and Africa. An exploration of culture shock, fatigue, and change through inter-cultural penetration.

Enrollment is encouraged for foreign students and American students who have had experience overseas or are planning to join the Peace Corps or a comparable program.

Mr. Fuchs

AMERICAN CIVILIZATION 175a,b. Violence in American Life

Historical study of the use of armed violence in American (domestic) life. Case studies. Special consideration of presidential assassinations, riots, and/or rebellions (by students and other citizens); riot control and rebellion control. Some questions addressed: How widespread has violence been in America as compared to other countries? What are the discernible results of violence: positive and negative, short run and long? What are the respective and comparative merits of historical, sociological, psychological, political explanations of violence? Single assassins or conspiracies? Planned disruption or spontaneous outbreak?

Mr. Cohen

AMERICAN CIVILIZATION 180a. Problems in Contemporary American Education

Concentrating on pre-college education, an analysis of the problems, educational and political, which confront American schools. Theories of learning, methods of teaching, instruments of measuring educational success, the politics of getting things done will be considered. Special attention to the education of the disadvantaged.

Mr. Cohen

AMERICAN CIVILIZATION 180b. Revolution and/or Reform in the American Tradition

Historical comparison and theoretical analysis of the movements, programs and philosophies of reform and/or revolution in America since 1932. As history,

the course will venture an interpretation of how these two tendencies in the political Left have interacted, abetting and thwarting each other's efforts. As theory and on the basis of the historical analysis, the course attempts to resolve some of the principal issues in this perennial debate between liberals and radicals. The instructor's own inclinations are reformist, but he is not imperialistic about his views. At the end of the course, the student should have an intelligible basis for choosing between or blending the present agendas of revolution and reform in America.

Mr. Cohen

AMERICAN CIVILIZATION 182a. American Pragmatism and Education

See Philosophy 147a.

Mr. Aiken

AMERICAN CIVILIZATION 190a,b. Mental Health in the United States:
Supervised Field Work

This course will aim to provide students with experience in working with people who need psychological help and with the conceptual framework for assimilating this experience. Each student will spend no less than one day a week during one term working, under supervision, in one of the participating agencies of the Massachusetts Department of Mental Health and will continue this work for two more months during the summer vacation. Students will also pursue a program of reading and, during the term, discuss their experiences in the weekly meetings of the group with the instructor. Each student will write a report, summarizing and evaluating what has been learned in the course, and possibly outlining plans for further work in this area.

The size of the course will be limited by the concentration and past experience of students.

Miss Hanfmann

AMERICAN CIVILIZATION 192a,b. An Introduction to Basic Concepts of
Welfare in the United States

Problems of social welfare and strategies of change.

To be announced

The following courses offered in 1970-71 will also be appropriate in meeting requirements for concentration in American Civilization.

AFRICAN AND AFRO-AMERICAN STUDIES—

See courses dealing with the Afro-American experience.

ECONOMICS 34aR. Government: Expenditures and Taxation

Mr. Weckstein

ECONOMICS 58b. Development of Welfare Policies in the United States

Mr. Rosenthal

ENGLISH 8a and 8aR. American Literature from 1832 to 1900

Miss Clift

ENGLISH 9a and 9aR. American Literature from 1900 to 1965

Messrs. Hindus and Swiggart

ENGLISH 82a. Leading American Novelists of the Twentieth Century

Mr. Lelchuk

ENGLISH 183b. Nineteenth Century American Literature

Mr. Hindus

- FINE ARTS 194b. Advanced Studies in American Art and Architecture
Mr. Bernstein
- HISTORY 51a. American Society: Analytical History (1607–1860)
Mr. Fischer
- HISTORY 51b. American Society: Analytical History (1860 to the Present)
Mr. Fischer
- HISTORY 150b. American Colonial History
Mr. Demos
- HISTORY 151aR. The Founding of the American Republic
Mr. Meyers
- HISTORY 154b. The United States between the World Wars
Mr. Auerbach
- HISTORY 155b. Civil Liberties in the United States
Mr. Auerbach
- *HISTORY 156b. History of Black America
- *HISTORY 164a. The American Polity to 1860
- *HISTORY 164bR. Politics of Modern America
- HISTORY 165a and b. The Social History of Modern America
Mr. Green
- *HISTORY 167b. Topics in the History of American Family Life
- *HISTORY 168b. Topics in Twentieth Century American Urban History
- HISTORY 169b. Working Class History in the United States
Mr. Green
- HUMANITIES 4a. American Literature from 1832 to 1900
Miss Clift
- HUMANITIES 4b. American Literature from 1900 to 1965
Messrs. Hindus and Swiggart
- POLITICS—*See* courses under *American Government* of Politics offerings.
- PSYCHOLOGY 130b. Psychology of Problem Solving and Learning
Mr. Klee
- SOCIOLOGY 112b. Social Stratification
Mr. Fellman
- SOCIOLOGY 117a. Sociology of Occupations
Mr. Bittner
- SOCIOLOGY 122a,b. Sociology of Power
Mr. Boime
- SOCIOLOGY 160a,b. Sociology of Art: Afro-American Art, Literature, Music, and Theater
Mr. Hicks
- SOCIOLOGY 161a. Historical Sociology: An Exploration of the Black Presence in American History
Mr. Hicks
- *THEATER ARTS 135. The Popular Arts

Anthropology

Associate Professor ALEX WEINGROD, *Chairman*; Professors HELEN CODERE, ROBERT A. MANNERS; Associate Professors GEORGE L. COWGILL, ROBERT C. HUNT, DAVID KAPLAN, BENSON SALER; Assistant Professors JOAN BAMBERGER, DAVID JACOBSON, DAVID A. HERR, E. CRAIG MORRIS, KARL M. I. REISMAN, MARGUERITE S. ROBINSON (*Student Adviser*); Lecturer TIMOTHY ASCH.

Requirements for Concentration

A. Required of all Candidates: Anthropology 1; 2 or 3; 33a plus five semester courses in Anthropology and two semester courses, above the introductory level, in other departments of the School of Social Science. Honors candidates are required to take an additional course, Anthropology 99.

Anthropology concentrators who wish to take a combined concentration in Anthropology and Linguistics will be required to take:

1. Anthropology 1; 2 or 3; 33a; 102a and b.
2. Three additional Anthropology courses from those listed in the departmental offerings.
3. Three of the following courses in Linguistics: English 191b, 193a, 196a and b, 197a.

B. Those planning to go on to graduate work should consult carefully with their adviser regarding course selections. Where prerequisites are listed, they must be fulfilled satisfactorily before enrollment in the stipulated course, except under extraordinary circumstances with permission of the Chairman of the Department.

Primarily for Undergraduates

ANTHROPOLOGY 1a. Social Anthropology

General introduction to ethnography and social anthropology.

Mr. Weingrod and Miss Bamberger

ANTHROPOLOGY 1aR. Social Anthropology

Mrs. Robinson

ANTHROPOLOGY 2a. The Development of Prehistoric Societies

A survey of archaeology and human pre-history. The origins of culture, the beginnings of agriculture and village life, and the rise of urbanism will receive primary attention.

Mr. Morris

ANTHROPOLOGY 3b. Introductory Physical Anthropology

A basic introduction to human evolution and the development of culture from its earliest beginnings.

Mr. Herr

ANTHROPOLOGY 11a. Anthropology and the Problems of the Developing Areas

An analysis of the social, economic and cultural forces at work in selected developing countries and the impact of western civilization in these areas.

Mr. Manners

ANTHROPOLOGY 15a. The Family in Cross-Cultural Perspective

A cross-cultural analysis of the family and the nature of kinship ties. Family systems in India, China, Africa, and Oceania will be studied in detail with emphasis on the relation of the individual to the family, and of the role of family and kinship in the social structure of each society.

Mrs. Robinson

ANTHROPOLOGY 19b. Hunters and Gatherers*ANTHROPOLOGY 33a. Comparative Studies in Society**

An analysis of anthropological theory and concepts through intensive study of selected ethnographies with particular emphasis on Africa.

Mr. Kaplan

ANTHROPOLOGY 96b. Senior Tutorial

Detailed analysis of selected topics in social anthropology. Recommended for seniors majoring in Anthropology. Open to others by consent of instructor.

Mr. Manners

ANTHROPOLOGY 98a and b. Readings in Anthropology

Readings and reports under the direction of a faculty supervisor. Open only to seniors with permission of the department.

Mr. Horr and Mr. Weingrod

ANTHROPOLOGY 99. Senior Research—Honors

Seniors who are candidates for degrees with distinction in Anthropology are required to register for this course and, under the direction of a member of the faculty, prepare an honors thesis on a suitable topic.

Staff

For Undergraduate and Graduate Students

Undergraduates will be admitted to any course above 115 only with permission of the instructor.

ANTHROPOLOGY 101b. Peoples and Cultures of the Caribbean**ANTHROPOLOGY 102a. Anthropological Linguistics I*****ANTHROPOLOGY 102b. Anthropological Linguistics II*****ANTHROPOLOGY 103b. Language and Culture*****ANTHROPOLOGY 104a. Verbal Arts****ANTHROPOLOGY 105a. Ritual, Myth and Symbol**

A study of the social dynamics of ritual behavior, mythology and symbolism in primitive peoples.

Not open to freshmen.

Miss Bamberger

ANTHROPOLOGY 106b. Human Ecology

A study of the interrelationship between man and his environment. Emphasis will be given to pre-historic societies and contemporary primitive peoples.

Miss Bamberger and Mr. Morris

ANTHROPOLOGY 109b. Archaeological Methods

Basic archaeological procedures for reconnaissance, excavation and analysis

* Not to be given in 1970-71.

of data; some important aspects of primitive technology; a survey of recently developed instruments and techniques for finding, dating and analyzing ancient materials; and problems in archaeological theory.

Laboratory exercises and field trips will give students practical experience with archaeological data. *Mr. Morris*

ANTHROPOLOGY 110a. Physical Anthropology

An introduction to the methods and materials of physical anthropology. A brief, intensive survey of non-primate and human evolution and fossil man. A study of human adaptation and the distribution of modern man in terms of morphology, genetics, geographical distribution, culture, and environmental factors. *Mr. Horr*

ANTHROPOLOGY 111a. Primates

An intensive introduction to the study of non-human primates with emphasis on ethology and primate behavior. An enquiry into the evolution of human behavior from a primate matrix. *Mr. Horr*

ANTHROPOLOGY 121a. Quantitative Techniques in Anthropology

An introduction to statistical and other formal methods in anthropology, including set theory, probability, cross-cultural methodology and computer techniques. *Mr. Cowgill*

*ANTHROPOLOGY 121b. Mathematical Methods in Anthropology

ANTHROPOLOGY 123a. Archaeology and Prehistory

A study of man's prehistoric cultures and the concepts and methods used by archaeologists in obtaining and interpreting data about these early cultures. Designed primarily for advanced undergraduates and graduates. *Mr. Morris*

ANTHROPOLOGY 124a. Civilizations of Mesoamerica

Development of preHispanic culture of Mesoamerica from the earliest agricultural settlements through Olmec, Teotihuacan and classic Maya to the Aztec state. *Mr. Cowgill*

ANTHROPOLOGY 126a. Archaeology of Cyprus

See MS 116a.

Mr. Todd

ANTHROPOLOGY 126b. Archaeology of the Aegean

See MS 116b.

Mr. Todd

*ANTHROPOLOGY 127a. Origins of Early Civilizations of the World

ANTHROPOLOGY 128b. Origins of African Cultures

African prehistory from the earliest cultures of the Lower Pleistocene to the beginnings of historic states. *Mr. Cowgill*

ANTHROPOLOGY 133a. Modern Africa

An examination of the indigenous organization of representative African societies in their ecological and historical settings. *Mr. Manners*

ANTHROPOLOGY 135b. Peoples and Cultures of India

An examination of institutions of representative Indian peoples and their relationship to the wider Indian society. *Mrs. Robinson*

* Not to be given in 1970-71.

- ANTHROPOLOGY 143b. Modern Cultures of Middle America
Contemporary Indian and Ladino societies. *Mr. Hunt*
- *ANTHROPOLOGY 144a. The Cultures of Native South America
- *ANTHROPOLOGY 144b. Folk and Peasant Cultures of South America
- *ANTHROPOLOGY 145b. The Development of Andean Civilization
- *ANTHROPOLOGY 150a and b. Film and Tape in Field Research
- ANTHROPOLOGY 151a. Social Organization
Theories of social organization, the inter-relations of social institutions, current anthropological methods of interpretation and analysis. *Mrs. Robinson*
- ANTHROPOLOGY 151b. Social Organization
This course will emphasize structural analysis. Designed primarily for advanced undergraduate and graduate students. *Miss Bamberger*
- ANTHROPOLOGY 152b. Economic Anthropology
Economic institutions of nonindustrial societies. *Mr. Kaplan*
- *ANTHROPOLOGY 153a. Primitive Art
See Fine Arts 195a.
- *ANTHROPOLOGY 153b. Ethnomusicology
See Music 180b.
- *ANTHROPOLOGY 154aR. Primitive Religion
- *ANTHROPOLOGY 155bR. Culture and Personality
- ANTHROPOLOGY 156b. Political Anthropology
Analysis of conflict, politics and government in tribal and peasant societies. *Mr. Jacobson*
- ANTHROPOLOGY 157b. Seminar on Urban Anthropology
Reading and research on selected problems in urban anthropology. This course will include fieldwork in Greater Boston.
Prerequisites: Anthropology 158a or permission of instructor. *Mr. Jacobson*
- ANTHROPOLOGY 158a. Urban Anthropology
Selected problems in the description and analysis of urban social organization. *Mr. Jacobson*
- *ANTHROPOLOGY 161b. Culture and Cognition
- *ANTHROPOLOGY 168a. A History of Sub-Sahara Africa
See History 185a.
- *ANTHROPOLOGY 168b. Studies in Sub-Sahara African History
See History 185b.

ANTHROPOLOGY 170a. Comparative Agrarian Societies

Representative agrarian cultures will be dealt with in detail, with particular emphasis on the interrelationship between the city, the rural community and the state.

Messrs. Kaplan and Weingrod

ANTHROPOLOGY 175a. Proseminar in Anthropological Method and Theory: I

Analysis of representative classics in anthropology.

Messrs. Hunt and Jacobson

ANTHROPOLOGY 175b. Proseminar in Method and Theory in Cultural Anthropology: II

The development of anthropological theory, major present-day trends and their relation to problems of research.

Messrs. Kaplan and Manners

See Graduate School catalog for courses numbered 200 and above.

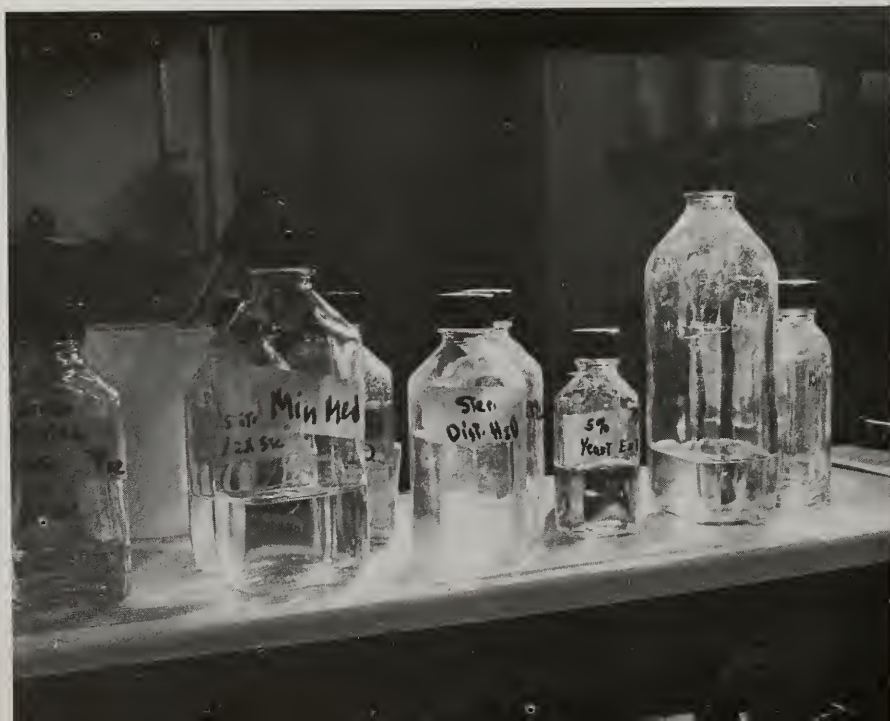
Biochemistry

Professor LAWRENCE LEVINE, *Chairman*; Professors ROBERT H. ABELES, GERALD D. FASMAN, LAWRENCE GROSSMAN, WILLIAM P. JENCKS, FARNSWORTH LOOMIS, JOHN M. LOWENSTEIN, SERGE N. TIMASHEFF; Associate Professors DAVID M. FREIFELDER, THOMAS C. HOLLOCHER, JR., WILLIAM T. MURAKAMI, MORRIS SOODAK, HELEN VAN VUNAKIS; Adjunct Associate Professors JULIAN N. KANFER, FARAHE MALOOF; Research Assistant Professor SUSAN LEEMAN; Adjunct Assistant Professor DWIGHT R. ROBINSON.

BIOCHEMISTRY 99. Research for Undergraduates

Prerequisite: Approval of department.

Mr. Soodak and Staff



For Undergraduate and Graduate Students

BIOCHEMISTRY 100a. Introductory Biochemistry

Chemistry and metabolism of compounds of biological importance, introduction to enzyme reactions, energy metabolism, cellular function and differentiation.

Prerequisite: Chemistry 25a,b.

Mr. Loomis

BIOCHEMISTRY 101. Advanced Biochemistry

Enzyme reactions including energetics, kinetics, and reaction mechanisms. Metabolism of carbohydrates, lipids, amino acids, nucleic acids, vitamins and coenzymes, hormones and inorganic substances. Coupled enzyme reactions and the synthesis of macromolecules.

Prerequisite: Chemistry 25a,b, Biochemistry 100a or their equivalent. Some background in elementary physical chemistry is recommended but is not required.

Mr. Abeles and Staff

See Graduate School catalog for courses numbered 200 and above.

Biology

Professor HERMAN T. EPSTEIN, *Chairman*; Professors MARTIN GIBBS, HUGH HUXLEY (*Visiting*), ALBERT KELNER, JEROME A. SCHIFF, MAURICE SUSSMAN, ANDREW G. SZENT-GYORGYI, EDGAR ZWILLING; Associate Professors CHANDLER M. FULTON, ATTILA O. KLEIN; Assistant Professors DAVID H. GILLESPIE, HERBERT OBERLANDER, GJERDING OLSEN (*Student Adviser*), RAYMOND E. STEPHENS; Lecturer MRS. ELSIE HASSKARL.

Requirements for Concentration

A. Advanced Standing: Credit for Biological Science, 1b, 2a, 3a, 3aR or Biology 10 can be given upon successful completion of the Advanced Placement Examination with a grade of 3, 4, or 5. In order to concentrate in Biology, however, any such candidate must also pass a departmental examination which is equivalent to that given in Biology 10.

Prospective biology majors are urged to take the Biology 10 Advanced Placement examination given during the first week of the course so that they may be considered for advanced standing by the Biology staff.

B. Required of all Candidates: All candidates must take Chemistry 10a and b or 11a and b, or 15a and b, 25a and b; Mathematics 10 or its equivalent; Physics 10 and 18c or 11 and 19c; Biology 10, 30a, 31a, 40a and two electives selected from Biology 20 through 199 (excluding 24a, 70b, 98 and 99); Chemistry 41a, b and Biochemistry 100a.

C. Students who wish to be considered for a distinction program in Biology should have a generally satisfactory academic record; honors grades in the core Biology courses are required. A candidate for distinction is required to petition the Biology staff at the beginning of his senior year. If action on this petition is favorable an honors program will be devised for the student. This may include laboratory research (under Biology 99), library research, a comprehensive program of appropriate additional undergraduate and graduate courses or any combination of these. This honors program must be approved by the staff at the beginning of the senior year and must be successfully completed by the student in order to obtain distinction in Biology.

D. Students taking Biology 99 may receive from eight to twelve credits per year for this course. The number of credits will be determined by the research supervisor of the 99 course and the Department Chairman. A satisfactory written report including the results of an independent investigation is required by the Department.

E. Satisfactory grades must be maintained in all Biology courses offered for concentration, and no more than one D will be allowed in any other course offered toward the requirement in this Department.

Primarily for Undergraduates

BIOLOGICAL SCIENCE 1b. Humanistic Biology

The aim of this course is to introduce the student to biology and its place in the intellectual activities of man. To be discussed: what problems concern the biologist; biology as a bridge between physics and chemistry and the social sciences; how biological insight can enrich, and is even essential for, a wide range of fields from the social sciences to the humanities, and even the creative arts; and finally, the biologists' contribution to universal questions engaging every generation.

As the necessary background to discussion of these subjects, a modern integrated concept of evolution will be taught: the evolution of the stars and planets leading to the origin of life, thence to biological evolution, resulting in intelligent life, and cultural evolution and society.

Two courses in the mathematical and physical sciences listed in Groups III and IV (see page 74) are recommended but not required.

Open to freshmen.

Mr. Kelner

BIOLOGICAL SCIENCE 2a. Cell Biology

This course will present current research findings relating to the basic phenomena of life—that is of metabolism, reproduction, sensitivity, reactivity, adaptation and control. Emphasis will be upon the processes not upon the organisms. Unresolved problems which are now, and in the future even more so, critically important to an informed person will be discussed.

This course cannot be used to satisfy pre-medical requirements.

Prerequisite: Chemistry 1a or permission of instructor.

Mr. Olsen

BIOLOGICAL SCIENCE 3a and 3aR. Research Case Studies

Sections of no more than 24 students will meet with an instructor in a class involving formal lectures and informal discussion. This course is not designed to provide a comprehensive grounding in biology. It is rather an attempt to acquaint the student with the way in which biologists approach a problem, pose a solution, and test it. The subject matter will consist of related scientific papers published in technical journals.

This course satisfies the General Education requirement in Biological Science.
Mr. Epstein and Staff

BIOLOGY 10. General Biology

Introduction to the more important principles of biology. This course is a prerequisite for concentration in Biology and for most courses offered in Biology.

Prerequisite: Chemistry 10a,b (may be taken concurrently).

Three classroom and four laboratory hours a week. *10 credits per year.*

Laboratory fee: \$10 per semester. *Staff to be announced*

***BIOLOGY 21a. Form and Function in the Invertebrates**

To be given in alternate years.

BIOLOGY 25b. Experimental Marine Ecology

The principles of ecology will be investigated using the marine environment as a model system. Correlated lecture discussion, primary reference material, laboratory experimentation, and field work. Class limited to 20.

Prerequisites: Biology 10, permission of instructor, and either Biology 21a or 31a.

Two lectures and one discussion session per week; "open-ended" laboratory and field work. *5 credits.*

Laboratory fee: \$15.

Mr. Stephens

BIOLOGY 30a. Principles of Genetics

An intensive consideration of the gene, from its development as biology's most abstract concept to contemporary studies of its molecular nature and their consequence. Lectures, discussions of original research papers, and experiments will be intermixed to display the operational basis on which the gene theory rests.

Prerequisites: Biology 10 and Chemistry 25a,b.

Three classroom hours per week; three laboratory hours per week (optional).

5 credits with laboratory; 4 credits without laboratory. *Mr. Stephens*

BIOLOGY 31a. Cellular Physiology and Metabolism

Basic biological problems at the cellular level. Chemical composition of cells. Intracellular organization of enzymes, functions of nucleus, cytoplasm, mitochondria, and microsomes; membrane permeability.

Prerequisites: Biology 10; Chemistry 25a,b.

Messrs. Schiff and Gibbs

BIOLOGY 32a. General Microbiology**BIOLOGY 34b. Evolutionary and Population Biology**

* Not to be given in 1970-71.

BIOLOGY 35b. Comparative Anatomy of the Vertebrates

An intensive comparative study of the anatomy of the principal organ system of vertebrate animals, with detailed laboratory study of representative forms.

Three classroom and six laboratory hours per week. *5 credits.*

Laboratory fee: \$15.

Mr. Olsen

BIOLOGY 40a. Developmental Biology

A consideration of developmental events in various organisms, with emphasis on the mechanisms by which organisms achieve an orderly progression of changes during their life cycles.

Prerequisites: Biology 30a, 31a.

Three classroom and three laboratory hours per week. *5 credits.*

Laboratory fee: \$15.

Mr. Oberlander

BIOLOGY 41b. General Physiology

Basic principles of physiology with special reference to vertebrates. Nerve, muscle, and other topics will be discussed. Examples of contemporary research will demonstrate the methods of attack used in physiological investigation.

Prerequisites: Chemistry 25a,b (may be taken concurrently); Biology 31a.

Messrs. Szent-Gyorgyi and Huxley

BIOLOGY 50b. Genetic Analyses of Development in Multicellular Organisms

A review of effects of mutants on developmental phenomena in multicellular organisms. Contributions made by such studies to an understanding of development as well as attempts to evaluate genetic control mechanisms at these levels.

Prerequisite: Biology 10.

Mr. Zwilling

BIOLOGY 70b. Human Ecology and Evolution

A seminar to explore one or more selected topics concerned with man's interaction with and adaptation to his environment. Extensive reading and classroom participation expected.

Prerequisite: Biology 10 or permission of the instructor. Biology 30a recommended.

Enrollment limited to 20.

Mr. Fulton



BIOLOGY 95b. Experiences in Experimentation

Students carry out independent research projects in fields of their interest, progressing at their own rate from simple to sophisticated experiments. The biological material will primarily be bacteria and the kind of experiments will be restricted to those of a biological, genetic and/or biochemical nature.

Prerequisite: Consent of instructor; junior or senior standing preferred.

Laboratory hours arranged on an individual basis.

4 credits per semester, or more by arrangement with instructor and staff.

Laboratory fee: \$15 per semester.

Mr. Gillespie

BIOLOGY 98a or b. Readings in Biology

This course will be open to exceptionally well-qualified students to serve as an introduction into the research literature of biology.

Admission only with the permission of the department. This is a one-semester course that can be taken either in the Spring or Fall term for a maximum of 4-credits.

Staff

BIOLOGY 99. Senior Research

This course will involve the student in an independent research project conducted under the supervision of a staff member. It will serve as an intensive introduction to specific methods of biological research. The experimental findings are to be presented in writing to the department for approval.

Admission only to students with an honor record in Biology and with the permission of the Department and of the staff member proposed as the research supervisor.

8 to 12 credits by arrangement with the instructor and staff.

Staff

For Undergraduate and Graduate Students

Admission to any of the following courses in Biology requires the consent of the instructor.

*BIOLOGY 101b. Comparative Physiology of Animals

*BIOLOGY 103a. Cell Structure and Function

BIOLOGY 108a. Vertebrate Endocrinology

A survey of the natures and modes of action of vertebrate hormones. The course will begin with a study of the direct effects of specific hormones and conclude with the analyses of the integrative and coordinative actions of the tropic hormones, the responding secretory glands and the target tissues.

For the mandatory laboratory considerable manual dexterity is required. Each student will present the results of an independent research project near the conclusion of the course.

Three classroom and four laboratory hours a week. 5 credits.

Prerequisites: Biology 10, Chemistry 25b.

Laboratory fee: \$20.

Mr. Olsen and Miss Leeman

° Not to be given in 1970-71.

BIOLOGY 124b. Virology

Biology of plant, animal and bacterial viruses.

Prerequisite: Biology 30a or the equivalent.

Mr. Epstein

*BIOLOGY 131b. Problems in Animal Morphogenesis

*BIOLOGY 150b. Physical and Mathematical Bases of Molecular Biology

Biology Colloquium

Presentations by staff members and guest lecturers on original investigations. Open to all undergraduate and graduate students of the Department. *No credit.*

See Graduate School catalog for courses numbered 200 and above.

Biophysics Option

To encourage students wishing to concentrate in Biology to acquire the extra mathematical, physical, and chemical background needed for the area of Biophysics, the Department offers an option which contains a reduced number of biology courses and an increased number of courses in the other science areas.

In addition to the introductory courses in each science department, students will take: Mathematics 20 or equivalent; Chemistry 25a,b, 41a,b; Physics 20a,b; and three Biology courses chosen from among 30a, 31a, 41b, 124b, and Biochemistry 100a.

Students with an honor grade average in science courses taken before the senior year may petition the Department to accept successful completion of this option as fulfilling the departmental requirements for distinction.

° Not to be given in 1970-71.



Chemistry

Professor SAUL G. COHEN, *Chairman*; Professors PAUL B. DORAIN (*Student Adviser*), SIDNEY GOLDEN, ERNEST GRUNWALD, JAMES B. HENDRICKSON, HENRY LINSCHITZ, MYRON ROSENBLUM, ROBERT STEVENSON; Associate Professors MICHAEL J. HENCHMAN, PETER C. JORDAN, KENNETH KUSTIN, COLIN STEEL, THOMAS R. TUTTLE, JR.; Adjunct Associate Professor ELI HAYON; Assistant Professors CARLOS R. ABELEDO, WILLIAM R. VITALE; Adjunct Assistant Professor EMILY P. DUDEK.

Requirements for Concentration

Members of the class of 1971 may complete either the Requirements for Concentration given below or the Requirements for Concentration given in the Brandeis University Catalog for 1967–68. The following requirements apply to members of the class of 1972 and the classes following:

A. Required of all Candidates: Chemistry 10a,b or 11a,b or 15a,b with laboratory; 25a,b; 41a,b; 121a; Mathematics 10a,b or 11a,b or 12; Physics 10 or 11 and 18c or 19c. In addition, one of the following two options: I. Mathematics 20a or 21a and one semester of Biology or an advanced level course in Physics. II. Mathematics 20a,b or 21a,b or 22.

Chemistry 10a,b or 11a,b or 15a,b satisfies the University General Education requirement in physical science and the general chemistry entrance requirements of most medical schools. It is recommended that Chemistry 41a,b be taken in the junior year and that at least one advanced course in science or Mathematics be taken in the senior year.

B. Additional requirement for candidates for degrees with departmental honors: Chemistry 99 and one semester of an advanced course in the School of Science. An additional one-semester advanced course in the School of Science may be substituted for Chemistry 99 with the approval of the Department. Students must petition the Department before the end of their junior year if they wish to be admitted to the honors program.

C. If the program selected to fulfill the requirement in Section B includes (1) two semester courses in Chemistry or Biochemistry, and (2) Chemistry 110b, this program will meet the standards for certification by the American Chemical Society. A student who wishes to meet these standards must also pass a course in German or pass a German language examination.

Primarily for Undergraduates

*CHEMISTRY 1a. Chemical Science

CHEMISTRY 10a. Elementary General Chemistry

An introduction to the fundamentals of chemistry for students who have not recently had a course in chemistry.

Experimental and theoretical basis of chemical principles with emphasis on the logical development of the understanding of chemical properties.

Three lecture hours per week. 4 credits.

Messrs. Kustin and Steel

° Not to be given in 1970–71.

CHEMISTRY 10b. Elementary General Chemistry

Lecture: A continuation of Chemistry 10a.

Prerequisite: A passing grade in Chemistry 10a.

Laboratory: The laboratory consists of experiments and demonstrations designed to complement and illustrate the lecture material.

Three lecture hours and one afternoon of laboratory per week. *5 credits.*

Laboratory fee: \$15.

Messrs. Kustin and Steel

Chemistry 11a. General Chemistry

A basic course in chemistry designed for students who have had a recent secondary-school course in chemistry.

A development of the understanding of chemical properties through experimental evidence and theoretical concepts, with an emphasis on fundamental principles. The laboratory consists of experiments and demonstrations designed to complement and illustrate the lecture material.

Three lecture hours and one afternoon of laboratory per week. *5 credits.*

Laboratory fee: \$15.

Messrs. Dorain, Linschitz and Mrs. Dudek

CHEMISTRY 11b. General Chemistry

Lecture: A continuation of Chemistry 11a.

Prerequisite: A passing grade in Chemistry 11a.

Laboratory: The laboratory is designed to illustrate the principles of analytical chemistry.

Students may take the lecture portion only. Three lecture hours per week. *4 credits.*

Three lecture hours and one afternoon of laboratory per week. *5 credits.*

Laboratory fee: \$15.

Messrs. Dorain, Linschitz and Abeledo

CHEMISTRY 15a. Advanced General Chemistry

A basic course in chemistry designed for students with good preparation and aptitude in science.

A rigorous and theoretical introduction to the principles of chemistry; Chemistry 15a can be expected to demand more ability and effort than Chemistry 11a. The laboratory is planned to develop an independent and critical approach to the design and analysis of experiments.

Prerequisite: Permission of the department.

Three lecture hours and one afternoon of laboratory per week. *5 credits.*

Laboratory fee: \$15.

Messrs. Golden, Henchman and Mrs. Dudek

CHEMISTRY 15b. Advanced General Chemistry

Lecture: A continuation of Chemistry 15a.

Prerequisite: A passing grade in Chemistry 15a.

Laboratory: Projects in chemical analysis in aqueous and non-aqueous media.

Students may take the lecture portion only. Three lecture hours. *4 credits.*

Three lecture hours and two afternoons of laboratory per week. *6 credits.*

Laboratory fee: \$15.

Messrs. Golden, Henchman and Abeledo

CHEMISTRY 16b. Analytical Chemistry

An introduction to the principles of chemical analysis in aqueous and non-aqueous media.

Two afternoons of laboratory per week. *2 credits.*

Laboratory fee: \$15.

Mr. Abeledo

CHEMISTRY 25a,b. Organic Chemistry

Structure, reactions, preparation and uses of the compounds of carbon. The laboratory will give experience in the important techniques of organic chemical practice and include synthesis of typical organic compounds.

Prerequisite: A satisfactory grade in Chemistry 10b or 11b, or 15b or equivalent.

Three lecture hours, one lab-lecture hour, and one 5-hour laboratory period per week. *12 credits.*

Laboratory fee: \$15. per semester.

Messrs. Henrickson, Rosenblum, Stevenson and Vitale

CHEMISTRY 41a,b. Physical Chemistry

An introduction to the theoretical foundations of chemistry dealing with thermodynamics, kinetic theory of gases, real gases, solids, liquids, solutions, electrochemistry and chemical kinetics. Basic measurements and techniques illustrating and applying physico-chemical principles; theory of errors, properties of gases, liquids and solutions, phase diagrams, electrochemistry, selected instrumental methods.

Students not concentrating in chemistry may, with special permission of the instructor, take only the lecture portion of Chemistry 41.

Prerequisite: Satisfactory grades in Chemistry 10b, 11b or 15b, or equivalent; Mathematics 20a or 21a or the equivalent, and Physics 10 or 11.

Three lecture hours, one discussion hour and three laboratory hours per week. *11 credits.*

Laboratory fee: \$10. per semester.

Messrs. Jordan and Steel

CHEMISTRY 99. Undergraduate Research

Research assignment, which may include literature survey, independent laboratory work, and presentation of oral and written reports; weekly conferences with adviser.

Students must have completed the German requirement (see page 103) before registering for this course.

Prerequisite: Consent of Chemistry Department.

Hours and credits to be arranged.

Laboratory fee: \$15.

Staff

For Undergraduate and Graduate Students

Admission to any of the following courses in Chemistry requires the consent of the instructor.

CHEMISTRY 110b. Analytical Chemistry

Principles and techniques involved in modern chemical analysis. Application of modern methods of chemical analysis to problems of theoretical and practical interest. Problems may include analysis for impurities or pollutants in water or air, or for additives in foodstuffs.

Prerequisite: Chemistry 41a,b which may be taken concurrently.

Two lecture and six laboratory hours per week. *5 credits.*

Mr. Tuttle

CHEMISTRY 121a. Inorganic Chemistry I

Introduction to the principles of chemical binding; valence theory, periodic properties, molecular structures. Application chiefly to the chemistry of the lighter and non-metallic elements.

Inorganic synthesis and analysis; synthetic techniques include vacuum line, high temperature, non-aqueous and electrochemical preparations. Instrumental methods of analysis.

Prerequisite: Chemistry 41a,b or consent of instructor.

Three lecture hours a week, 4 *credits*; six laboratory hours a week, 2 *credits*.

Laboratory fee: \$15.

Mr. Abeledo

CHEMISTRY 122b. Inorganic Chemistry II**CHEMISTRY 123b. Nuclear Chemistry****CHEMISTRY 130a. Advanced Organic Chemistry—Structure**

Introduction to group theory and its application to molecular orbital theory and spectroscopy. Application of physical and spectroscopic methods to the elucidation of structure and stereochemistry of organic compounds.

Prerequisites: Satisfactory grades in Chemistry 25a,b or the equivalent.

Mr. Rosenblum

CHEMISTRY 131a. Advanced Organic Chemistry—Mechanisms

Structure, reactivity, and mechanism.

Prerequisite: Satisfactory grades in Chemistry 25 and 41 or the equivalent.

Mr. Cohen

CHEMISTRY 132b. Advanced Organic Chemistry—Synthesis

A survey of several organic reactions of theoretical and synthetic interest including a discussion of their application, scope, specificity, and mechanism.

Prerequisite: Satisfactory grade in Chemistry 25a,b or the equivalent.

Mr. Hendrickson

CHEMISTRY 141a,b. Advanced Physical Chemistry I

Classical, statistical, irreversible thermodynamics and chemical kinetics. Properties of real systems: gases, phase stability, chemical equilibrium and solutions. Statistical equilibrium, ensembles and fluctuations. Entropy production, reciprocal relations, microscopic reversibility, and regression of fluctuations. Rate laws and approach to equilibrium; scattering and energy transfer. Gas and solution kinetics. Surface reactions.

Prerequisite: Chemistry 41 or the equivalent.

First semester: Mr. Linschitz

Second semester: Mr. Kustin

CHEMISTRY 142b. Advanced Physical Chemistry II

Quantum mechanics: waves and wave packets, operator methods, Schrodinger's equation, simple model systems, angular momenta, perturbation theory and variational principle.

Prerequisite: Chemistry 41 or the equivalent.

Mr. Golden

° Not to be given in 1970-71.

CHEMISTRY 143a. Advanced Physical Chemistry II

A continuation of Chemistry 142b. Quantum Chemistry: spin, atomic and molecular structure, spectroscopy, chemical binding, advanced topics.

Prerequisite: Chemistry 142b or the equivalent.

Mr. Jordan

CHEMISTRY 144a. Structure and Spectroscopy

Interaction of radiation with matter and its relevance to molecular structure. Topics will be selected from: X-ray and electron diffraction; microwave, nmr, infra-red, visible and ultraviolet absorption; molecular beam and mass spectrometry.

Prerequisite: Chemistry 41 or the equivalent.

Mr. Tuttle

See Graduate School catalog for courses numbered 200 and above.

Classics

Associate Professor DAVID S. WIESEN, *Chairman*; Professors (*Visiting*) CHARLES R. BEYE, JOSEPH FONTENROSE; Associate Professor DOUGLAS J. STEWART; Instructor LEONARD C. MUELLNER.

Requirements for Concentration in Classics

A. Eight semesters in Greek and Latin above the second year level, with at least two in each language.

B. One semester in Greek, Latin, or allied fields, as approved by the student's adviser.

C. A semester in Greek history and one in Roman history.

D. For honors candidates, Greek or Latin 99.

Requirements for Concentration in Classical Civilization

A. Four semester courses in Greek *or* Latin above the second year level.

B. A semester course in Greek *or* Roman history.

C. A combination of five semester courses selected from among courses taught in the following departments or programs: Comparative Literature, English, Fine Arts, History, History of Ideas, Mediterranean Studies, NEJS, Philosophy, Politics, Romance Languages, and Theater Arts.

GREEK 1. Introductory Greek

First Semester: Grammar and selected readings.

Second Semester: Readings in Plato.

Greek 1 is a full year course and may not be dropped with credit at midyear.

Mr. Muellner

GREEK 10. Epic, Lyric and Tragic Poetry

First Semester: Homer.

Second Semester: Lyric Poetry and one play of Euripides.

Prerequisite: Greek 1 or appropriate placement score or permission of instructor.

Messrs. Muellner and Stewart

GREEK 98. Directed Reading

Special study of authors not covered in Greek 1-118, according to the individual needs of students. Staff

GREEK 99. Directed Research Staff

GREEK 110b. Post-Classical Greek

A study of the grammar and idiomatic developments of Hellenistic or *Koine* Greek as an international language. Special emphasis on the *Septuagint* and contemporary documents. Mr. Stewart

GREEK 116. History and Drama

First Semester: Thucydides and Aristophanes.

Second Semester: The *Oresteia* of Aeschylus. Mr. Stewart and Mr. Fontenrose

*GREEK 118. Dialogues of Plato; Tragic Drama of Sophocles

Greek 116 and 118 are offered in alternate years.

LATIN 1a. Introductory Latin

An intensive course meeting daily and carrying double credit. Students completing this course may proceed to the second semester of Latin 2. Mr. Stewart

LATIN 2. Intensive Review

Readings in Cicero, Ovid, and Virgil.

Prerequisite: Latin 1 or appropriate placement score or permission of the instructor. Mr. Wight

LATIN 10. Mythology and Love Poetry

First Semester: Ovid's *Metamorphoses* and its influence on European literature and art.

Second Semester: The varieties of love and the language of amatory expression will be studied in the poetry of Catullus, Propertius, Tibullus, and Ovid.

Mr. Muellner

LATIN 98. Directed Reading

Special study of authors not covered in Latin 1-118, according to the individual needs of students. Staff

LATIN 99. Directed Research Staff

LATIN 116. The Silver Age of Latin Literature

First Semester: The *Satyricon* of Petronius; Satires of Juvenal.

Second Semester: Tacitus, *Annales*; Lucan, *De Bello Civili*.

Mr. Wiesen and Mr. Muellner

*LATIN 118. Epic and Didactic Poetry

Latin 116 and 118 are offered in alternate years.

CLASSICS 4a. The Art of Greece and Rome I

See Fine Arts 31a.

Miss Loeffler

CLASSICS 4b. The Art of Greece and Rome II

See Fine Arts 31b.

Miss Loeffler

* Not to be given in 1970-71.

CLASSICS 9b. Ancient Greek Religion

A study of the worship of the gods in ancient Greece, with emphasis on the cults of the City-States. Special attention will be given to rituals, mysteries, oracles, shamanism, hero-cults, Minoan-Mycenaean and Homeric religion and the religious ideas of Greek poets and philosophers.

See Humanities 9b.

Mr. Fontenrose

CLASSICS 15a. The Greeks

See Humanities 15a.

Miss Staves and Mr. Stewart

CLASSICS 105a. Male and Female in Greek and Roman Society

Concepts of family and clan, the changing attitudes toward the rule of the sexes, and homosexuality as forces affecting the growth and decay of classical civilization. Readings in translation from Homer, Hesiod, Euripides, Aristophanes, Plato, Lucretius, Ovid, Juvenal, and St. Jerome.

Mr. Wiesen

***CLASSICS 110. Advanced Studies in Ancient Art**

See Fine Arts 193b.

Miss Loeffler

CLASSICS 111b. Hellenistic Greece

The Peloponnesian War and the failure of the city states; rise of Macedonia; Alexandrian Age; Rome in Greece; Graeco-Roman civilization.

Mr. Beye

CLASSICS 112a. Constitutional History of Rome

Growth and structure of the Roman political system analyzed as historical reality, political theory, and western myth. Special attention will be paid to the social and economic factors in the period 146 B.C.—14 A.D. and in the reigns of Hadrian, Diocletian, and Constantine.

Mr. Beye

CLASSICS 118a. The Changing Greek City-State**CLASSICS 119b. The Roman Revolution**

Classics 118a and 119b will be offered in 1971–72.

***CLASSICS 165. Greek and Roman Drama**

See Theater Arts 165.

* Not to be given in 1970–71.



Comparative Literature

Committee: Professor EDWARD ENGELBERG (*Chairman*); Professors MILTON HINDUS, DENAH L. LIDA; Associate Professors ANDREE COLLARD, STEPHEN J. GENDZIER, WILLIAM H. MATHESON; Assistant Professors JOHN F. HECKMAN (*Student Adviser*), LUIS E. YGLESIAS; MR. CHRISTOPHER J. KERTESZ.

Requirements for Concentration: 11 semester courses

A. Comparative Literature 97c and *either* Comparative Literature 145a and 145b, *or* Comparative Literature 120a and 130b. Concentrators must take 145a and 145b *or* 120a and 130b as a full year course and must do so *in sequence*. In addition, one course chosen from the following: Comparative Literature 116b, 148a, 187a (or any course *not* taken under the year sequence above).

B. Two semester courses chosen from Comparative Literature 135a, 141b, 150a, 151b, 155b, 175a, 181b, 195a, 199a, *or one* of the courses not chosen under Requirement A.

C. Four semester literature courses in a foreign language. Courses numbered 10 or 100 do not meet this requirement except in Russian and Italian.

D. All concentrators are required to present a Senior Essay (ca. 30–40 pp) (see Comparative Literature 97). Honors will be awarded on the basis of cumulative excellence in the performance of the courses taken in the concentration and the Senior Essay.

It is strongly recommended that concentrators take a composition course (French 106b, German 106a, or Spanish 106b; Italian 3aR or Russian 106bR) in the foreign language or languages in which they choose to work.

It is strongly recommended that concentrators (especially those who plan a graduate career in Comparative Literature) begin a second foreign language.

In all Comparative Literature courses taken under Requirements A and B, concentrators are required to read in the original the works written in the language or languages of their concentration.

In addition to the courses listed below, students should consult offerings in *all* foreign literatures, English, Humanities, and Theater Arts.

COMPARATIVE LITERATURE 97. Senior Seminar

Methods of comparative studies. Independent research toward Senior Essay. Required of *all* concentrators. *Staff*

COMPARATIVE LITERATURE 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the advisers to concentrators and the Chairman of the Department. *Staff*

COMPARATIVE LITERATURE 116b. The Renaissance

Fundamental changes in Western man's view of his world and of himself: readings in such authors as Petrarch, Pico della Mirandola, Machiavelli, Ariosto, Rabelais, Spenser, Ronsard, Montaigne, Bruno, and Shakespeare.

Prerequisite: Foreign Language 10 (or its equivalent) or permission of the instructor. *Mr. Kertesz*

COMPARATIVE LITERATURE 120a. Baroque and Classicism

The concept of the hero in relation to the world of the literary work in such authors as Donne, Tristan L'Hermite, Andreas Gryphius, J. C. Gunther, Molière, Racine, Hamann, and Lessing.

Prerequisite: Foreign Language 10 (or its equivalent) or permission of the instructor. *Mr. Heckman*

COMPARATIVE LITERATURE 130b. The Crisis of Conscience:
1715–1810

The development of literary forms (drama, fable, novel, etc.) in relation to the new vision of man as expressed in such concepts as the sublime, genius and the origin of language.

Prerequisite: Foreign Language 10 (or its equivalent) or permission of instructor. *Mr. Heckman*

*COMPARATIVE LITERATURE 135a. Crosscurrents in French and
English Fiction of the Eighteenth Century

*COMPARATIVE LITERATURE 141b. The Picaresque Tradition in the Novel

COMPARATIVE LITERATURE 145a. European Romanticism I

The flowering types of romantic heroes from Rousseau to Peer Gynt.

Prerequisite: Foreign Language 10 (or its equivalent) or permission of instructor. *Mr. Engelberg*

COMPARATIVE LITERATURE 145b. European Romanticism II:

The Decline of Romanticism to Early Modernism

E. T. A. Hoffmann, Leopardi, DeQuincey, Poe, Gogol, Baudelaire, Wagner, Chekhov, Thomas Mann.

Prerequisite: Foreign Language 10 (or its equivalent) or permission of instructor. *Mr. Engelberg*

COMPARATIVE LITERATURE 148b. The Lyric since Valéry

The course will include works by Valéry, Rilke, Montale, Neruda, Machado, *et al.*

Prerequisite: Foreign Language 10 (or its equivalent). Seniors only or permission of instructor. *Mr. Yglesias*

*COMPARATIVE LITERATURE 150a. The Bildungsroman

*COMPARATIVE LITERATURE 151b. The Pastoral Tradition

*COMPARATIVE LITERATURE 155b. Three Experimentalists: Joyce,
Proust, and Italo SvevoCOMPARATIVE LITERATURE 164a. Existentialism and European
Literature

Kierkegaard, Sartre, Camus, Kafka.

Mr. Swiggart

* Not to be given in 1970–71.

COMPARATIVE LITERATURE 175a. The Psychological Novel

An historical and critical analysis of form and theme in psychological fiction from Goethe to Robbe-Grillet.

Prerequisite: Foreign Language 10 (or its equivalent) or permission of the instructor. Enrollment limited to 30 students. *Mr. Engelberg*

*COMPARATIVE LITERATURE 181b. Don Juan

*COMPARATIVE LITERATURE 185b. The African Theme

*COMPARATIVE LITERATURE 187a. Themes of Medieval Literature and Arthurian Romance

*COMPARATIVE LITERATURE 195a. The Theory and Practice of Literary Translation

*COMPARATIVE LITERATURE 198b. English Poets in Their European Contexts

COMPARATIVE LITERATURE 199a. Origins of the Lyric

A study of the development of lyric form in such poets as Guillaume de Machaut, Villon, Marot, Ronsard, Wyatt, and Sidney.

Prerequisite: Foreign Language 10 (or its equivalent) or permission of the instructor. Open to graduate students. *Mrs. Rothschild*

Computer Science

COMPUTER SCIENCE 2a. Introduction to Computer Sciences

See Physical Science 2a.

Messrs. Chrétien and J. Cohen

COMPUTER SCIENCE 17a. Introduction to Numerical Methods and Computer Programming

Numerical solution of algebraic and differential equations, elements of statistical analysis and linear programming, FORTRAN programming and practical exercises on IBM 1130 computer.

Prerequisite: Mathematics 10 which can be taken simultaneously, or permission of instructor.

Open to freshmen with permission of instructor.

Mr. Chrétien

COMPUTER SCIENCE 27b. General Introduction to Programming Languages

Context-free grammars; Backus' normal form; syntactic analysers; practical exercises in non-numerical programming.

Prerequisite: Computer Science 17a. Good knowledge of FORTRAN. By permission of instructor. *Mr. Jacques Cohen*

COMPUTER SCIENCE 28a. Algorithms and Data Structures

Algorithms. Programming of algorithms in machine language. Subroutines. Coroutines, Interpreters. Data Structures: stacks, queues, lists, trees. Dynamic storage allocation. Garbage collection.

Prerequisite: Computer Science 27b or permission of instructor.

Mr. Jacques Cohen

* Not to be given in 1970-71.

COMPUTER SCIENCE 35b. Formal Languages and Syntactic Analysis

Formal grammars: finite-state, context-free, context-sensitive, transformational. Relationship between formal languages and automata. *Mr. Jacques Cohen*

COMPUTER SCIENCE 45a,b. Tutorial in Computer Science

Open to students with extensive background in computer programming and applications. By permission of instructor. *Mr. Jacques Cohen*

Economics

Associate Professor ROBERT EVANS, JR., *Chairman*; Professors JOSEPH S. BERLINER, LOUIS LEFEBER, RICHARD S. WECKSTEIN; Associate Professors F. TRENER DOLBEAR, JR. (*Student Adviser*); GERALD ROSENTHAL; Assistant Professors ROBERT LARNER, THOMAS O'BRIEN, BARNEY SCHWALBERG; Lecturers BARRY FRIEDMAN, LEONARD HAUSMAN, BARBARA SOLOW; Instructor LARRY HIRSCHHORN.

Requirements for Concentration

A. All concentrators must complete satisfactorily each of the following:

1. Economics 1a and 1b, or Economics 2a.
2. Economics 80a and 82b.
3. Economics 83a.
4. A total of eight courses in Economics. (Economics 98 may not be used to fulfill this requirement.)

B. Candidates for departmental honors must complete satisfactorily Economics 99 in addition to the above.

Where prerequisites are listed, they must be fulfilled satisfactorily before enrollment in the stipulated course, except in extraordinary circumstances with permission of the Chairman of the Department.

For further details in concentration and courses, see the Department Course Guide, available in Brown 311.

ECONOMICS 1a †. Introduction to Economics

A study of the principal economic issues facing advanced industrial societies, with special emphasis on problems of full employment and the relation of fiscal and monetary policies to this goal.

Open to freshmen.

Staff

ECONOMICS 1bR †. Introduction to Economics

Two main topics are discussed: (a) the internal organization of the economy by means of the price system, and (b) the world economy, including international trade and the problems of economic development of rich and poor countries.

May precede Economics 1a.

Staff

† Economics 2a will in the future be the standard introductory course. Economics 1a and 1b will be offered in the Fall of 1970 only for students who have previously taken 1b or 1a and wish to complete the one-year sequence.

ECONOMICS 2a. Introduction to Economics

A one-semester introduction to economic analysis with policy applications; the role of markets and government in economic activities. Major issues include unemployment, inflation, growth, regulation of business, and the environment. Evaluation of the American economy. A common analytic core is taught in several sections, employing different approaches. See Department Course Guide.

The course will be accepted by the Department as equivalent to Economics 1a and 1b. *Staff*

ECONOMICS 2aR. Introduction to Economics*Staff****ECONOMICS 22a. American Economic History****ECONOMICS 23aR. Economic History of Europe, 1780–1914**

Origins of development of industrial economies of modern Europe: the concept of the Industrial Revolution and the roles of population, agriculture and technical change; effect of European industrialization on the rest of the world. Focus is on Great Britain but all major European countries are studied, including sectors where industrialization failed to take place.

Prerequisites: Economics 1a and 1b, or 2a, or permission of instructor.

*Mrs. Solow****ECONOMICS 24a. The Soviet Economy*****ECONOMICS 26b. The Modern Economic History of Japan and China****ECONOMICS 28b. Economics of Modern Colonial Empires**

Analysis of colonialism and imperialism through the study of selected historical cases, with illustrations drawn from cases in Latin America, Southeast Asia and Africa.

Theories of imperialism are studied with emphasis on the economic development. Student research papers will be required.

Prerequisites: Economics 1a and 1b, or 2a, or permission of the instructor.

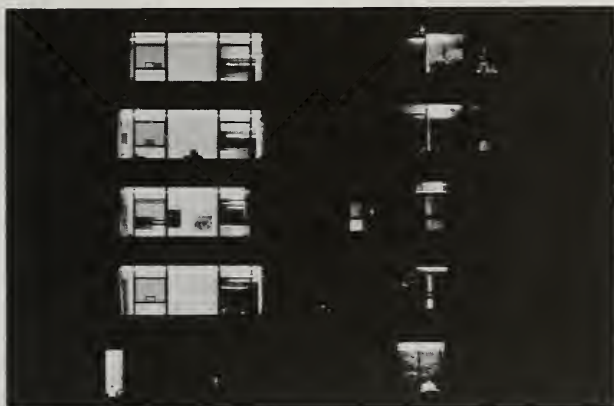
*Mrs. Solow****ECONOMICS 32b. Comparative Economic Organization
(formerly 132b)****ECONOMICS 34aR. Government: Expenditures and Taxation**

Deals with the proper scope of government and private economic activity; effects of taxation on equity and efficiency; problems of cost and choice in government expenditures. Case studies to include government activities in the fields of education, national defense, and urban renewal.

Prerequisites: Economics 1a and 1b, or 2a.

Mr. Weckstein

* Not to be given in 1970–71.



ECONOMICS 37aR. The Political Economy of Cities

A study of the city as both an economy and a polity. The development of cities, the relationship to community and metropolis are explored. Municipal finance, land use and transportation are considered in particular. Urban renewal and planning techniques are examined.

Prerequisites: Economics 1a and 1b, or 2a.

Mr. Hirschhorn

ECONOMICS 46bR. The World Economy: Trade and Development

An introduction to the economics of less developed countries and to the principles of international trade. These principles are then applied to the major problems of the world economy: world income inequality, integration and disintegration, the possibility of exploitation by trade and capital movements, and monetary instability. Finally, the main proposals for reform and revolution are studied.

Prerequisites: Economics 1a and 1b, or 2a.

Mr. Weckstein

ECONOMICS 48bR. Bargaining and Strategy

Theories of strategy are applied to problems of collective bargaining between labor unions and business firms, oligopoly, war, arms control, international relations, and conflict resolution. Policy implication for institutional reform are derived where possible.

Prerequisites: Economics 1a and 1b, or 2a.

Mr. Rosenthal

ECONOMICS 54b. Economic Aspects of Medical Care

(formerly 154b)

A study of the economic aspects of the production and distribution of medical-care services. Among the topics to be considered are the economic role of physicians, the structure of health manpower, the social and economic consequences of alternative methods of payment, and the role of government in the medical-care market.

Prerequisite: Economics 80 or permission of instructor.

Mr. Rosenthal

ECONOMICS 58b. Development of Welfare Policies in the United States

This course will examine the development of social welfare in the United States in the context of the social, economic and political changes of the last century. Particular attention will be given to problems of poverty, unemployment, retirement and medical care.

Mr. Rosenthal

*ECONOMICS 68a. History of Economic Thought (I)

*ECONOMICS 68b. History of Economic Thought (II)

ECONOMICS 75a. The Economics of Underdeveloped Countries

An examination of the causes and characteristics of economic underdevelopment. Attention will be given to particular countries within the underdeveloped world.

Recommended for Latin American Studies concentrators.

Prerequisites: Economics 1a and 1b, or 2a.

Mr. Lefebvre

ECONOMICS 76bR. The Economics of Labor Markets

Why do some unskilled workers earn more than some highly educated workers? Would more unionization for skilled workers reverse these results? Why are more married women and fewer older men working? How does the labor market discriminate against blacks? These and other questions regarding the economics of markets for people are analyzed, and their policy implications discussed.

Prerequisites: Economics 1a and 1b, or 2a.

Mr. Evans

ECONOMICS 79b. Legal Regulation of Economic Activity

The formulation and historical development of government policy toward business enterprises and labor organizations, with particular attention to government regulation, antitrust, and the NLRB. The course involves an analysis of the methods and evolution of control, and the legal and economic impact of decisions by Congress, the FTC, NLRB and the courts. Alternatives, solutions and institutional forms will be considered. Satisfactory prior completion of either Economics 76b or 135b is recommended.

Mr. Evans and Mr. Lerner

ECONOMICS 80a. Price Theory

A study of the theory of resource allocation in a market system: consumer behavior, the firm, factors of production and income distribution, general equilibrium, welfare, and market failure.

Prerequisites: Economics 1a and 1b, or 2a.

Mr. Lerner

ECONOMICS 82b. National Income Analysis

The meaning of the national income concepts; the factors determining the level of national income, employment and prices; the influence of fiscal and monetary policies; theory of economic growth.

Prerequisites: Economics 1a and 1b, or 2a.

Mr. Dolbear

ECONOMICS 83a. Introduction to Quantitative Economics

A first course in statistical inference. Topics include: descriptive statistics, probability theory, testing hypotheses, analysis of variance correlation and regression.

Prerequisites: Economics 1a and 1b. First courses in calculus and linear algebra are not required but would be helpful.

Mr. Schwalberg

ECONOMICS 84b. Econometrics

An introduction to the construction and testing of econometric models. Single and multiple equation models will be treated with special emphasis on the analysis of economic time series.

Prerequisites: Economics 80a, 82b, and 83a.

Mr. Hirschhorn

ECONOMICS 98a and b. Readings in Economics

Readings and reports under the direction of a faculty supervisor. Available to seniors with permission of the Department.

Staff

ECONOMICS 99. Senior Research

Seniors who are candidates for degrees with distinction in Economics are required to register for this course and, under the direction of a member of the faculty, prepare an honors thesis on a suitable topic.

Staff

ECONOMICS 100b. Workshop in Urban Economics**ECONOMICS 130b. Introduction to Mathematical Economics**

See Mathematics 49b.

ECONOMICS 135bR. Industrial Organization

Economic analysis of American industry in terms of market structure, conduct and performance. Topics included are business organization, concentration, barriers to entry, price and product policies, profits, efficiency, and progressiveness.

Prerequisite: Economics 80a.

Mr. Larner

ECONOMICS 140a. Theories of Economic Development**ECONOMICS 156b. Welfare Economics****ECONOMICS 160b. International Trade**

A study of international trade theory, commercial policy, capital movements, and the evidence for and opposed to the theory; the alternatives available for international monetary reform; finally, the economic theory of national boundaries, customs unions, and currency areas.

Prerequisites: Economics 80a and 82b.

Mr. Lefebber

ECONOMICS 170aR. Monetary and Fiscal Policy

The role of monetary and fiscal policy in achieving economic goals of the United States. Existing institutions and proposed reforms are studied.

Prerequisite: Economics 82b.

Mr. Weckstein

ECONOMICS 172b. Comparative Labor Problems*ECONOMICS 190a. Advanced Topics in Economic Theory and Policy**

This course and Economics 190b are designed to build upon and extend the basic core of economic theory and policy developed in Economics 80a and 82b. See Department Course Guide.

Prerequisites: Economics 80a and 82b.

Mr. Dolbear

ECONOMICS 190b. Advanced Topics in Economic Theory and Policy

Mr. Lefebber

* Not to be given in 1970-71.

Education

Committee: DR. JOHN BURT WIGHT, *Chairman*; DR. PETER D. WITT (*Secretary and Director*); Professor ROBERT O. PREYER; Associate Professor DOUGLAS J. STEWART; Assistant Professors JEROME P. BOIME, ROBERT V. LANGE.

This program is intended to supplement the liberal arts curriculum for the student planning to teach in elementary or secondary school. A student cannot select Education as a field of concentration, but the student who completes the Education Program will acquire at least sixteen credits toward a teaching certificate.

Students interested in elementary education generally practice-teach in the second semester of their junior year. They should apply to the program, if possible, before April 1 of the sophomore year. There are also a limited number of openings for second-semester seniors. Practice teaching in the junior high school and high school is done in the first semester of the senior year. Applications to this section are due by April 1 of the junior year. Qualified candidates are accepted after interviews with both the director of the program and representatives of the cooperating schools. They then take, *concurrently*, Education 1b and Education 10bB, or Education 2a and Education 10aA.

Other requirements of the Education Program include Psychology 15a or Psychology 30b, which should be taken before practice teaching, and one other semester course concerned with problems of education, such as American Civilization 85a or b, American Civilization 180a, Philosophy 147a, or Education 98a or b.

EDUCATION 1b. Seminar: Teaching in the Elementary School

Methods and principles of the curriculum are critically examined through readings, observation and discussion. Course meetings are held in the program laboratory schools and are integrated with the practice teaching. Enrollment limited to students in the Education Program. *Mr. Witt and Staff*

EDUCATION 2a. Seminar: Teaching in the Secondary School

Methods and principles for secondary school subjects. Individual and group tutorial work with teacher-consultants in particular subject areas.

Enrollment limited to students in the Education Program. *Mr. Witt and Staff*

EDUCATION 10a and b. Practice Teaching

Observation and student teaching in elementary or secondary schools under supervision of experienced teachers; regular conferences to discuss and evaluate the teaching experience.

Student teachers must plan to be at their schools for the entire school day. Enrollment limited to students in the Education Program. *Mr. Witt*

EDUCATION 98a and b. Individual Readings and Research in Education

Mr. Witt

English and American Literature

Professor BENJAMIN B. HOOVER, *Chairman*; Professors JAMES V. CUNNINGHAM, EDWARD ENGELBERG, VICTOR HARRIS, MILTON HINDUS, ROBERT O. PREYER, PHILIP RAHV, JOHN H. SMITH, AILEEN WARD; Associate Professors ALLEN S. GROSSMAN, SAMUEL JAY KEYSER, PETER SWIGGART; Assistant Professors CHARLES R. BLYTH, JR., ARLENE L. CLIFT, ARTHUR EDELSTEIN, JAMES F. GOLDBERG, RAY S. JACKENDOFF, KAREN WILK KLEIN, ALAN LELCHUK, ALAN L. LEVITAN, RICHARD J. ONORATO, S. SUSAN STAVES; Lecturers HARRISON HOBLITZELLE, JOHN BURT WIGHT.

Requirements for Concentration

Required of all Candidates: Eight semester courses of which two are electives. The remaining six must include (1) a course in Literary Method, English 11a; (2) four courses treating any four of the following five periods: Medieval Literature, Renaissance Literature, Classic and Romantic Literature, Nineteenth Century Literature, Twentieth Century Literature; (3) the Senior Essay or a Senior Tutorial.

An alternate route to concentration is offered for those who wish to emphasize Linguistics. Required: nine courses: any four periods from the requirements listed above under (2), and any four Linguistics courses. In addition, Linguistics 99 must be taken. Each program should be worked out in consultation with the Linguistics Coordinator.

Primarily for Undergraduates

See end of English offerings for freshman courses in writing, Page 125.

ENGLISH 1a and 1aR. The Freshman Seminar: Literature and Contemporary Issues

Discussion, reading, and writing on various subjects in classes limited to fifteen students. A list of topics to be offered in individual seminars will be announced before the beginning of the term.

Mr. Edelstein and Staff

ENGLISH 2a and 2aR. Advanced Writing Seminar

May be taken by any student who has passed or has been exempted from Freshman Composition. Emphasis will be on expository writing. Section topics to be announced.

Mr. Wight and Staff

ENGLISH 3a and 3aR. Shakespeare

Mr. Levitan

ENGLISH 5b. The Seventeenth Century

The major writers of poetry and prose from the 1590's to the Restoration, with special attention to Donne, Jonson, Bacon, Herbert, Browne, and Marvell.

Mr. Harris

ENGLISH 6a. The Eighteenth Century

The eighteenth century as a time of conflict and radical change: satire, criticism, protest, prophecy. Pope, Swift, Fielding, Johnson, Blake, Wordsworth and others studied in relation to three themes: the demands of society versus individual freedom; the new urban growth (and industrialization) and the consequent "return to nature;" the conflict between the rational and irrational in art. *Mr. Hoover*

ENGLISH 7b. The Victorian Period

An account of the nature and role of literature in the first age of mass education and industrial society. Literature as the expression of the quality of life available in a culture and as criticism of the health of that culture. Among the authors studied, Carlyle, Ruskin, Newman, Arnold, Tennyson, Browning, Dickens, Thackeray, Hardy, Hopkins. *Mr. Preyer*

ENGLISH 8a and 8aR. American Literature from 1832 to 1900

Mr. Swiggart and Miss Clift

ENGLISH 9a and 9aR. American Literature from 1900 to 1965

Messrs. Hindus and Swiggart

ENGLISH 11a and 11aR. Introduction to Literary Method

A course designed to train students in the techniques of literary study through an investigation of certain major forms of literature—poetry, fiction, and the drama. Limited to 20 students. *Messrs. Onorato and Swiggart*

ENGLISH 12a. The Lyric in English

Critical papers, original poems.

Fulfills the Literary Method requirement for English concentrators.

Mr. Cunningham

ENGLISH 15b. Autobiography

Studies in the literary presentation and evaluation of the writer's life and self. Readings will include works by Augustine, Rousseau, Franklin, Henry Adams, Henry James, Sartre, Kazantzakis, P. Thoms, Conroy, A. Nin, H. Miller.

Limited to 15 students.

Mrs. Klein

ENGLISH 21b. Fourteenth Century Literature

Readings in the narrative and lyric poetry of Chaucer and his contemporaries.

Mrs. Klein

ENGLISH 30b. Christianity

See Humanities 15b.

Miss Staves

ENGLISH 45b. Utopias

This course will consider important Utopian literature from a wide range of countries and periods. (Works from foreign literature will be read in English.) Much of the emphasis will be on earlier classics in the genre, including Plato, St. Augustine, Campanella, More, and Bacon, but more modern works will also be treated, including such anti-Utopias as *Brave New World* and *1984*. *Mr. Smith*

*ENGLISH 55b. Religious Poetry of the Seventeenth Century

ENGLISH 62a. The Eighteenth Century Novel

Early developments in English fiction with some attention to "theories" of the novel and problems in the practical criticism of fiction. Emphasis on Richardson, Fielding, Sterne, and Jane Austen.

Miss Staves

ENGLISH 72b. The Nineteenth Century Novel

Representative novels from Jane Austen to Joseph Conrad, with special attention to the development of Dickens.

Mr. Goldberg

ENGLISH 82a. Leading American Novelists of the Twentieth Century

Mr. Lelchuk

*ENGLISH 83a. American Poetry of the Nineteenth Century

ENGLISH 84a. American Poetry of the Twentieth Century

A study of American poetry since the turn of the century with emphasis on works by black poets.

Miss Clift

ENGLISH 85a. Some Currents in the Recent Novel

Bellow, Mailer, Vonnegut, Pynchon, Roth, Calisher, Kosinski, Updike, Coover, Barth, and others selected by the class.

Mr. Harris

ENGLISH 90a and b. Independent Study

Staff

ENGLISH 93b. Poetry in English at the Present Time

This course will engage in the business of living in a world in which poetry is being written.

Mr. Grossman

ENGLISH 101a. Directed Writing: Fiction

(formerly English Composition)

Mr. Edelstein

ENGLISH 101b. Directed Writing: Fiction

(formerly English Composition)

Mr. Lelchuk

ENGLISH 102b. Directed Writing: Poetry and Prose

(formerly English Composition 102a)

Mr. Cunningham

ENGLISH 108b. The Image of the South in Nineteenth Century American Literature

The course will focus on the concept of the South as seen in writers from all sections of the country. In addition to novels and poetry, autobiographies and histories will be considered.

Miss Clift

SENIOR TUTORIALS: Limited to 15 students.

ENGLISH 110a or b. The Senior Essay

Staff

ENGLISH 111a. Religious Poetry as a Problem in Poetic Theory

An approach to the relationship between poetic structure and ordinary experience through description. Some prior knowledge of seventeenth century English poetry is desirable.

Mr. Grossman

° Not to be given in 1970-71.

ENGLISH 112b. Fiction of the Self

Mr. Onorato

ENGLISH 117b. Hardy and Hopkins

An opportunity to ponder the *corpus* of an artist's work and to consider the effectiveness or adequacy of literary responses to such a study in depth. Special attention will be paid to the consideration of the "breakthrough" or untraditional qualities in the two authors.

Mr. Preyer

ENGLISH 118a. Realism in American Literature

Emphasis on Twain, Howells, Crane, Norris, Dreiser.

Mr. Edelstein

For Undergraduate and Graduate Students

ENGLISH 121a. Old English

An intensive introduction to Old English language utilizing a critical reading of major shorter Old English poetry (including "The Dream of the Rood," "The Seafarer," and "The Battle of Maldon"). Some attention will be given to the place of this literature in Anglo-Saxon culture.

Fulfills the medieval requirement for English concentrators.

Mr. Blyth

*ENGLISH 121b. Beowulf

ENGLISH 123a. Chaucer

The major works of Chaucer read in the original language, with emphasis on two themes: Chaucer's contribution to narrative art and his implicit theory of fiction, and Chaucer's work as the reflection of traditions of later medieval Christian culture.

Mr. Blyth

ENGLISH 140a. Shakespeare

Intensive study of a small number of Shakespeare's plays including some less well-known plays and their backgrounds. English 3a is not a prerequisite.

Mr. Smith

ENGLISH 142a. Elizabethan and Jacobean Drama

A survey of major dramatic works, excluding Shakespeare, from roughly the mid-sixteenth to the midseventeenth centuries.

See Theater Arts 170a.

Mr. Smith

ENGLISH 143b. Music and Poetry: Their Changing Relationships

A survey of English lyric poetry in its literal sense of "texts to be sung." The changing relationships between poets and composers, and the esthetic and social motivations behind them.

Mr. Levitan

ENGLISH 155b. Milton and Blake

Mr. Harris

*ENGLISH 160a. Augustan Satire

ENGLISH 165b. Restoration Drama: Comedy, Heroic Drama, and Political Tragedy

Dryden, Wycherly, Etherege, Shadwell, Lee, Otway, and Congreve.

Miss Staves

* Not to be given in 1970-71.

ENGLISH 170a. Some Theories of Fiction and Style

The history of criticism, ancient and renaissance, with some more recent texts.

Mr. Cunningham

ENGLISH 171a. Romantic Poetry

Emphasis on Blake, Wordsworth, and Coleridge.

Mr. Goldberg

ENGLISH 173b. Culture and Society: Literary-Social Criticism and Social Theory in the Nineteenth Century.

A comparative analysis of the growth of the idea of culture (Coleridge, Carlyle, Arnold and others) and the development of social theory (de Tocqueville, Mill, Engels, Marx, and others).

Mr. Goldberg

ENGLISH 174a. Puritanism in American Literature

The course will treat the historical and literary background of Puritanism in America in relation to uses of and reactions to the concept and connotations in nineteenth and twentieth century writers and critics. Particular attention will be devoted to Hawthorne.

Miss Clift

ENGLISH 175b. Literature and Poverty in Twentieth Century America

Study will involve works of history, anthropology, and sociology as well as fiction.

Mr. Edelstein

ENGLISH 177a. The Russian Novel: Tolstoy and Dostoevsky

Mr. Rahv

ENGLISH 178a. Studies in the Literature of Nineteenth Century Social Criticism

An inquiry into the Western writers and ideas that influenced Gandhi, the seminar deals with the intellectual backgrounds of certain contemporary problems (mechanization and human values, social involvement and withdrawal, peace and the "moral equivalent" of war) as seen in the selected writings—and in the lives—of Carlyle, Ruskin, Emerson, Thoreau, Tolstoy, and Gandhi himself.

Mr. Hoblitzelle

*ENGLISH 180a. Change and Continuity in Modern Literature

ENGLISH 183b. Nineteenth Century American Literature

A study of the similarities and differences between those nineteenth century American poets who were accepted in their own time (Bryant, Longfellow, Lowell, Whittier, Holmes, Emerson, Poe) and those whose main recognition came in the twentieth century (Whitman, Emily Dickinson, Melville).

Mr. Hindus

*ENGLISH 185b. Modern British and American Drama

ENGLISH 188b. Linguistics and Meaning

Contemporary efforts to construct a linguistics theory of meaning will be compared to other modern theories of language including logical positivism and British "ordinary language" philosophy. Special attention will be paid to the evidence of metaphor and of poetic meaning. No training in linguistics is necessary.

Mr. Swiggart

* Not to be given in 1970-71.

ENGLISH 191a. Introduction to Linguistics

This course begins with a survey of the philosophical, psychological, and biological foundations of human language. It focuses on the outstanding questions which an adequate theory of language must answer and considers in some detail current attempts to answer them.

See Linguistics Program.

Mr. Keyser

ENGLISH 191b. Introduction to Linguistic Structure

The aim of this course is to awaken the student's awareness of how much a speaker of English knows about his language that he has not been explicitly taught, to show that this knowledge requires explanation, and to develop a theory of linguistic structure which can account for it. No knowledge of formal grammar or linguistics is assumed.

Open to freshmen.

See Linguistics Program.

Mr. Jackendoff

ENGLISH 192b. History of the English Language

This course begins with an introduction into the sound system of modern English. It then looks at the sound systems of earlier stages of the language and examines the ways in which earlier stages changed into later stages. Finally, it attempts to generalize from these instances to a theory of linguistic change.

See Linguistics Program.

Mr. Keyser

ENGLISH 193a. Problems in Phonology

A seminar in phonology in the light of universal grammar.

Prerequisite: Consent of the instructor.

See Linguistics Program.

Mr. Keyser

ENGLISH 196a. Semantics and Linguistics

This course will explore the semantic structure of language in terms of current linguistic theory.

Prerequisites: English 191a or 191b.

See Linguistics Program.

Mr. Jackendoff

*ENGLISH 196b. Universal Grammar

See Linguistics Program.

ENGLISH 197a. Problems in Syntax

This course is designed to give students a working familiarity with syntactic rules and their manipulations in a theory of grammar.

Prerequisites: English 191a or 191b.

See Linguistics Program.

Mr. Jackendoff

ENGLISH 197b. Syntactic Theory

A seminar in syntactic theory in the light of universal grammar.

Prerequisite: Consent of the instructor.

See Linguistics Program.

Mr. Jackendoff

ENGLISH 199a and b. Directed Research in Linguistics

Mr. Keyser

* Not to be given in 1970-71.

Writing Courses

Freshman Writing Seminar (1a and 1aR) for all freshmen not exempted from the English Composition requirement.

Discussion, reading and writing on various subjects in classes limited to ten students. A list of topics to be offered in individual seminars will be announced before the beginning of the term. Special emphasis on fundamental skills, sentence structure, logic, and paper organization.

Miss Staves and Staff

Writing Referral Program: The Writing Tutorial staff offers non-credit individual instruction in expository writing to any undergraduate with writing difficulties. Students may refer themselves or be referred by faculty members from any department.

See Graduate School catalog for courses numbered 200 and above.

In addition to the courses listed above, students should consult the offerings in Comparative Literature, Humanities and Theater Arts, especially Comparative Literature 164a and 195a.

English and Classics

Committee: Associate Professor DAVID S. WIESEN, DR. JOHN BURT WIGHT.

A. Five courses required for concentration in English.

B. Three year-courses in Latin above the Latin 1 level or three year-courses in Greek above the Greek 1 level.

C. A one-semester course of independent study (English 90a or b), or Comparative Literature 195a.

It is recommended, though not required, that a student offering the combination of English and Latin also acquire an elementary knowledge of Greek and that a student offering the combination of English and Greek also acquire an elementary knowledge of Latin. A student's course of study in this field may be supplemented by appropriate courses in history, philosophy, art, and archaeology.

No course which is offered in fulfillment of the general language requirement may be counted toward concentration in this field.



Environmental Studies

Committee: To be announced in the Fall of 1970.

An undergraduate science program in Environmental Studies, organized for the first time this year on an interdisciplinary basis among the Departments of Science and with the cooperation of the Departments of Social Science. Successful completion of the program will constitute fulfillment of concentration requirements for an undergraduate degree.

The program is designed to provide students with a background in the basic sciences, an understanding of the biological and physical aspects of environmental problems arising from modern technology, and an introduction to related topics in social science areas. At the advanced level, a student may choose between a science track or a science/social science track. A primary intent of the program is to lay the scientific groundwork to enable individuals to consider the important social and policy issues associated with environmental problems.

The program is expected to be of interest to pre-medical and pre-law students, potential school teachers, community service workers, government regulatory workers, science writers, and similar professions. With the addition of suitable electives, the role of a particular discipline can be strengthened to allow graduate or professional work in most areas of basic and applied science, as well as in inherently interdisciplinary areas such as community health, regional and resource planning, urban studies, earth science, and, of course, environmental science.

Requirements for Concentration

A. Required of all candidates:

1. Two semesters of introductory biology with laboratory (Biology 10); two semesters of introductory chemistry (Chemistry 10ab, 11ab, 15ab, or 11a and 15b); either two semesters of introductory physics (Physics 10 or 11) or two semesters of introductory mathematics (Mathematics 10, 11 or 12). Students in the Environmental Studies Program must satisfy their General Education requirement in Social Sciences with courses selected from Economics 1b, 2a, 34aR, Politics 1a, 14b or from other social science courses recommended by the Program Committee.

2. Environmental Studies 70 and Environmental Studies 10b. Environmental Studies 5a will not fulfill the requirement, except as approved by the Program Committee in special cases.

3. Five semesters of advanced courses approved by the Program Committee under either of the following two options: all five in one or at most two of the disciplines of natural science and mathematics; or three in one of the disciplines of natural science and mathematics and two in one of the disciplines of social science. Courses taken under category (1) do not meet this requirement. In addition, the courses under this requirement must meet the concentration requirement in the discipline in question, with exception made in certain instances by action of the Program Committee.

B. Requirements of candidates for degrees with distinction: A student will qualify for honors if he maintains an average of B or better in courses meeting the concentration requirements, is accepted in an honors program by the Program Committee, and elects to undertake a research project under Environmental Studies 99.

***ENVIRONMENTAL STUDIES 5a. Impact of Technology on the Environment**

A survey course dealing with a range of environmental problems. The course is offered at the freshman level as a contribution to general education and is open to both science and non-science students. The material will be presented through lectures and discussions.

The course will be initiated in the Fall of 1971.

ENVIRONMENTAL STUDIES 10b. Principles underlying Environmental Problems

A freshman seminar for the student intending to concentrate in the program. The purpose will be to focus in depth on one or a small number of environmental problems and to explore the various biological and physical aspects and their interconnections in detail.

Prerequisite: Approval of Program Committee.

To be announced

ENVIRONMENTAL STUDIES 70. Scientific Basis of Environmental Studies

(formerly Biochemistry, Biology, Physics 24a)

An interdisciplinary, problem-oriented seminar for students at the junior or senior level with backgrounds in one or more areas of science. The course covers two semesters. Students will be required to participate in student-faculty seminars dealing with several types of environmental problems and to write one or more detailed papers.

Areas for discussion: global effects of technology; population and resource questions; pollution and health effects; weapons technology and potential effects.

Prerequisite: Approval of Program Committee.

Messrs. Hohensemser (Physics), Hollocher (Biochemistry), Zwilling (Biology)

Additional staff to be announced

ENVIRONMENTAL STUDIES 98a,b. Readings in Environmental Studies

Readings and reports under the supervision of a faculty supervisor.

Prerequisite: Approval of the Program Committee.

Staff from Participating Departments

ENVIRONMENTAL STUDIES 99. Undergraduate Research

Research assignment, which may include literature survey, independent laboratory work, and presentation of oral and written reports, under the supervision of a faculty supervisor. A copy of the final report should be submitted to the Program Committee.

Prerequisite: Approval of the Program Committee.

Staff from Participating Departments

European Languages and Comparative Literature

Romance Languages and Comparative Literature. —See Page 191

Germanic and Slavic Languages. —See Page 136

° Not to be given in 1970-71.

Fine Arts

Professor JOACHIM E. GAEHDE, *Chairman*; Professors PETER GRIPPE, WILLIAM C. SEITZ, MITCHELL SIPORIN; Associate Professor LUDOVICO BORGIO; Assistant Professors CARL I. BELZ, ROBERT W. BERGER, GERALD S. BERNSTEIN, PAUL L. BROWN, PETER LIPSITT, ELAINE P. LOEFFLER, ROBERT J. MAEDA, MICHAEL B. MAZUR, ROBERT J. PERO.

Requirements for Concentration

Concentration may be elected in either (I) Applied Arts (Studio) or (II) Art History and Criticism.

- I. Studio concentrators are required to take:
 - a) Fine Arts 1, 103, and four additional semesters of studio electives.
 - b) Four semesters of Art History consisting of:
 - one course in Ancient or Medieval Art;
 - one course in Oriental Art;
 - two courses in Renaissance to Modern Art.
- II. History concentrators are required to take:
 - a) Eight semesters in Art History consisting of:
 - two courses in Ancient or Medieval Art;
 - one course in Oriental Art;
 - two courses in Renaissance to Modern Art;
 - three elective courses.
 - b) One full year course of Studio work in either Fine Arts 1 or 103, at the discretion of the Department. (Students with previous studio training can be admitted to Fine Arts 102 or 111 to fulfill their studio requirement.)
 - c) Two semester courses in related fields to be selected with the adviser's written approval from offerings in other departments.

Prospective graduate students in the History of Art will be advised to take two semester courses in language to acquire the reading facility now generally demanded for admission to Graduate School.

FINE ARTS 1. Elements of Design in Art

Theoretical and visual study of the meaning in pictorial form. Studio work in various color and drawing media.

Three studio hours per week.

Fine Arts 1 is a year course and may not be dropped with credit at midyear.

Studio fee: \$5. per semester.

Messrs. Brown and Pero

FINE ARTS 20a. Introduction to the History of Art 1: Antiquity to the Middle Ages

Enrollment in each section limited to 35.

Mr. Gaehde and Miss Loeffler

FINE ARTS 20b. Introduction to the History of Art 2: From the Renaissance to the Modern Age

Enrollment in each section limited to 35. Messrs. Berger, Bernstein and Belz

FINE ARTS 20bR. Introduction to the History of Art 2: From the Renaissance to the Modern Age *Mr. Borgo*

FINE ARTS 21b. Great Buildings of the Western World
(formerly 121a)

Introduction to architecture through detailed analyses of a limited number of architectural masterpieces from classical Greece to the modern world. The readings will offer a variety of theoretical approaches to architectural history and criticism. *Mr. Berger*

FINE ARTS 31a. The Art of Greece and Rome I

A study of Greek art to the fourth century B.C. including Crete and Mycenae.
See Classics 4a. Miss Loeffler

FINE ARTS 31b. The Art of Greece and Rome II

Architecture, sculpture, and painting from the time of Alexander the Great to Constantine the Great.
See Classics 4b. Miss Loeffler

FINE ARTS 41a. Early Christian and Byzantine Art

A study of form and meaning in architecture, sculpture and painting from the beginning of the Christian era to the Fall of Constantinople. *Mr. Gaehde*

FINE ARTS 42b. Medieval Art in Western Europe

Architecture, sculpture and painting from the migrations to the end of the Gothic period. *Mr. Gaehde*

FINE ARTS 51a. Art of the Early Renaissance in Italy

Major painters, sculptors and architects in Rome, Florence and Venice from Giotto to Leonardo da Vinci. *Mr. Borgo*

*FINE ARTS 54b. Renaissance Art in Northern Europe

To be given in 1971-72.

FINE ARTS 58b. The High Renaissance in Italy

A study of sixteenth century painting, sculpture, and architecture from Leonardo da Vinci to Tintoretto. *Mr. Borgo*

FINE ARTS 98a and b. Independent Study

Readings and reports on a special project under the direction of a faculty adviser. Available to seniors and juniors with the permission of the Department. *Staff*

FINE ARTS 99. Senior Research

Staff

* Not to be given in 1970-71.

FINE ARTS 102. Theory and Practice of Painting

Organization of natural and abstract forms in space. Psychological and emotive potentialities of composition and color. Exploration of the working materials of the painter.

Prerequisite: Fine Arts 1 or consent of the instructor.

Three studio hours per week.

Studio fee: \$5. per semester.

Mr. Siporin

FINE ARTS 103. Life Drawing

Observation and study of basic shapes in nature and their application to drawing the figure.

Prerequisite: Fine Arts 1 or consent of the instructor.

Three studio hours per week.

Studio fee: \$5. per semester.

Messrs. Brown and Lipsitt

FINE ARTS 104. Advanced Life Drawing

Advanced study of drawing with special emphasis on the human figure, its anatomy and structural design. Individual expression is encouraged and the use of drawing in pictorial composition is explored.

Prerequisite: Fine Arts 103 or consent of the instructor.

Studio fee: \$5. per semester.

Mr. Siporin

FINE ARTS 108. Advanced Painting

A workshop course which will stress creative individual work in painting. The study of natural forms, as well as the organization of forms from the imagination will be undertaken. The various media of painting and the employment of the technical means of art towards personal artistic expression in painting will be explored.

Prerequisite: Consent of the instructor.

Studio fee: \$5. per semester.

Mr. Siporin

FINE ARTS 111. Sculpture

Introduction to problems of modeling in clay and wax, coloring and glazing of tiles, slip making and firing. Compositions from life and from the imagination in bas relief and in the round.

Three classroom hours and three hours of informal studio work per week.

Prerequisite: Fine Arts 1 or 103 or consent of the instructor.

Studio fee: \$15. per semester.

Mr. Lipsitt

FINE ARTS 112. Advanced Sculpture

A workshop course exploring traditional and modern styles and techniques. Stress on design and figure composition.

Prerequisite: Consent of the instructor.

Studio fee: \$15. per semester.

Mr. Lipsitt

FINE ARTS 115. Workshop in Woodcut, Etching, and Engraving

Techniques covered include woodcut, line engraving, dry point, lift ground, aquatint, bitten textures, intaglio and surface printing. Printing in black and white and color.

Prerequisite: Open to art concentrators or with consent of the instructor.

Studio fee: \$12.50 per semester.

Mr. Pero

FINE ARTS 116. Advanced Workshop in Printmaking

Development of further skills and knowledge of print media and of the student's individual esthetic direction.

Prerequisite: Fine Arts 115 and permission of instructor.

Studio fee: \$12.50 per semester.

Mr. Pero

***FINE ARTS 119b. Advanced Workshop with Visiting Artist**

To be given in 1971-72.

FINE ARTS 120a. Modern Architecture

The development of the modern movements in architecture from the nineteenth century to the present.

Mr. Bernstein

FINE ARTS 122a. American Architecture and Painting

An historical survey of American architecture and painting. Art as it reflects American values and traditions.

See American Civilization 122a.

Mr. Bernstein

FINE ARTS 160a. Seventeenth Century Masters

Emphasis on the outstanding architects, sculptors, and painters in Western Europe in the seventeenth century. The concept of the Baroque will be examined.

Mr. Berger

***FINE ARTS 161b. Eighteenth Century Art**

To be given in 1971-72.

FINE ARTS 170a. Nineteenth Century European Painting

(formerly 70a)

The development of modern painting in Europe, with special emphasis on French masters.

Mr. Belz

FINE ARTS 171b. Painting and Sculpture of the Twentieth Century

(formerly 71b)

The development of twentieth century art, with special emphasis on cubism and abstract art in Europe, and on the post-war period in American art.

Mr. Belz

FINE ARTS 172b. Problems and Issues of Modern Art

(formerly 171b)

Readings, discussions and research in selected areas of modern art.

Prerequisite: Permission of the instructor.

Mr. Seitz

FINE ARTS 180b. Introduction to the Art of India

An historical survey of Indian art.

Mr. Maeda

* Not to be given in 1970-71.

- FINE ARTS 181b. Introduction to the Art of Japan
Emphasis on the history of sculpture and painting. *Mr. Maeda*
- FINE ARTS 182a. Introduction to the Art of China
An historical survey with emphasis on painting. *Mr. Maeda*
- FINE ARTS 184a. Seminar in Far Eastern Art
Studies in Chinese painting. *Mr. Maeda*
- FINE ARTS 190b. Advanced Studies in Medieval Art
A study of selected works or problems by means of seminar discussion. The topic will be announced each year.
Prerequisite: Permission of instructor required. *Mr. Gaehde*
- FINE ARTS 191b. Advanced Studies in the Renaissance *Mr. Borgo*
- FINE ARTS 192a. Advanced Studies in Modern Art *Mr. Belz*
- FINE ARTS 193b. Advanced Studies in Ancient Art *Miss Loeffler*
- FINE ARTS 194b. Advanced Studies in American Art and Architecture
Mr. Bernstein
- *FINE ARTS 195a. Primitive Art
See Anthropology 153a.
- FINE ARTS 196a. Advanced Studies in Seventeenth and Eighteenth Century Art *Mr. Berger*
- *FINE ARTS "S". Studio Colloquium
To be given in 1971-72.

Flexible Curriculum

Courses under this program will be announced in the Fall of 1970.

French Language and Literature

Requirements for Concentration

- A. Required of all Concentrators: French 3a, 106b, and two year-courses chosen from French 116a and b, 117a and b, 127a and b.
- B. Five semester courses from offerings above French 10.
- C. One year course from the School of Humanities, except logic and composition.

* Not to be given in 1970-71.

D. Additional requirement for candidates for degrees with distinction: French 99.

French 1 and 2 are full year courses and may not be dropped with credit at midyear.

French 10 may be divided with the permission of the Coordinator or the Chairman.

FRENCH 1. Introductory French

Staff

FRENCH 2. Intermediate French

Prerequisite: French 1, appropriate placement score, or permission of the instructor.

Staff

FRENCH 3a and 3aR. Intermediate Conversation

Prerequisite: Concentration in French or permission of the instructor.

To be announced

FRENCH 5a. Accelerated Second Year French

An *intensive* one-semester course for students whose placement score or performance in French 1 indicates an advanced preparation.

Prerequisite: Permission of the Coordinator or the Chairman. *Mr. Vergne*

FRENCH 10. Readings in French Literature

Prerequisite: French 2 or 5a, appropriate placement score or permission of instructor.

Staff

FRENCH 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the adviser to concentrators and the Chairman of the Department.

Staff

FRENCH 99. Senior Research

Students who are candidates for degrees with honors in French must register for this course and prepare an honors thesis under faculty direction.

Staff

FRENCH 100. Introduction to Literary Analysis

This course is especially recommended to qualified freshmen who anticipate a concentration in some area of the School of Humanities.

Prerequisite: An appropriate placement score or permission of instructor.

Mr. Heckman

*FRENCH 106b. Advanced French Composition

Prerequisite: French 10 or permission of instructor.

FRENCH 107b. French Stylistics

Conducted entirely in French.

Prerequisite: French 10 or permission of instructor.

Mr. Vergne

* Not to be given in 1970-71.

FRENCH 116aR. Medieval French Literature

Prerequisite: French 10 or permission of instructor.*Mrs. Rothschild*

FRENCH 116bR. French Renaissance Literature

Prerequisite: French 10 or permission of instructor.*Mr. Gendzier*

FRENCH 117aR. Seventeenth Century Moralists: Satire and Irony

Prerequisite: French 10 or permission of instructor.*Miss Pollock*

FRENCH 117bR. French Classical Drama

Prerequisite: French 10 or permission of instructor.*Mr. Cloonan*

FRENCH 127a. The Eighteenth Century: Fiction and Theater

Prerequisite: French 10 or permission of instructor.*Miss Pollock*

FRENCH 127b. The Eighteenth Century: The Age of Enlightenment

Prerequisite: French 10 or permission of instructor.*Mr. Gendzier*

*FRENCH 138a. The French Novel in the First Half of the Nineteenth Century

Prerequisite: French 10 or permission of instruction.

*FRENCH 138b. The French Novel in the Second Half of the Nineteenth Century

Prerequisite: French 10 or permission of instructor.

FRENCH 139a. Nineteenth Century French Poetry: Romanticism to Symbolism

Prerequisite: French 10 or permission of the instructor.*Mr. Sachs*

FRENCH 139b. Modern French Poetry: Symbolism to the Present Day

Prerequisite: French 10 or permission of instructor.*Mr. Lipson*

* Not to be given in 1970-71.

*Rosenthal Dormitories*

FRENCH 140a. The Modern French Theater: From Symbolism to the Second World War

Prerequisite: French 10 or permission of instructor.

Mr. Vergne

FRENCH 140b. The Contemporary French Theater: Movements and Playwrights since the Second World War

Prerequisite: French 10 or permission of instructor.

Mr. Cloonan

*FRENCH 149a. Early Twentieth Century French Fiction

*FRENCH 149b. Contemporary French Fiction

Prerequisite: French 10 or permission of instructor.

*FRENCH 150b. Modern French Literary Criticism

General Science

Committee: Assistant Professor GJERDING OLSEN, *Chairman and Student Adviser;* Professor RICHARD S. PALAIS; Associate Professors PETER C. JORDAN, HELEN VAN VUNAKIS; Assistant Professor IRA H. GILBERT, *Ex-officio;* Professor JACK GOLDSTEIN.

The general science program is designed for students desiring a diversified program in the sciences; for example, for students planning to teach science in secondary schools, to enter medicine or public health and their allied fields, or to undertake other programs requiring a general scientific background. Students who intend to do graduate work in a specific scientific field are advised to fulfill the undergraduate requirements for concentration in that field.

Requirements for Concentration

A. Required of all Candidates: Biology 10, Mathematics 10 or 11 or 12; Physics 10 (and 18c) or 11 (and 19c); Chemistry 10a and 10b, or 11a and 11b, or 15a and 15b.

The candidate must have a minimum grade of C in each of the required courses above.

B. Elective Courses: With the approval of the faculty advisers for the program, each concentrator in the General Science program must elect, in addition, the equivalent of three year courses from the offerings of the School of Science. These three courses must be selected from at least two and not more than three fields in the School of Science, so that advanced courses will be required of all students in this program. General Education courses in Science and Readings courses, such as Biology 98, Physics 98, etc., may not be counted for concentration.

C. Requirements for candidates for degrees with distinction: A student may petition the General Science Committee to devise an honors program which is in accordance with the special background of the individual.

D. No more than one D grade will be allowed in the elective half courses offered toward concentration in this program.

* Not to be given in 1970-71.

Germanic and Slavic Languages

(See Page 192 for Russian)

Professor HARRY ZOHN, *Chairman*.

German

Professor HARRY ZOHN (*Student Adviser*); Assistant Professors EBERHARD FREY, LAURA HOURTIENNE.

Russian

Assistant Professors MARGARET DALTON, ROBERT SZULKIN (*Student Adviser*); MR. DAVID A. HANSON (*Language Laboratory Coordinator*), Miss SONIA KETCHIAN.

For course offerings and requirements for concentration, see German and Russian.

German Language and Literature

Requirements for Concentration

A. Required of all Concentrators: German 3bR, 100aR, 106aR, 110a or 110b, 120a, 140a, 160b or 180aR.

B. Two half courses chosen from the German course offerings above German 10.

C. Two half courses or one year course in a related area chosen with the consent of the adviser.

D. Additional Requirement for candidates for degrees with distinction: German 99.

German 1 and 2 are full year courses and may not be dropped with credit at midyear.

German 10 may be divided with the permission of the Coordinator or the Chairman.

GERMAN 1. Introductory German

Staff

GERMAN 2. Intermediate German

Prerequisite: German 1, appropriate placement score, or permission of instructor.

Staff

*GERMAN 3bR. Composition and Conversation

GERMAN 5a. Accelerated Second Year German

An intensive one-semester course for students whose placement score or performance in German 1 indicates an advanced preparation.

Prerequisite: Permission of the Coordinator or the Chairman.

Mr. Frey

* Not to be given in 1970-71.

GERMAN 10. Readings in German Literature

Prerequisite: German 2 or 5a, appropriate placement score, or permission of the instructor. *Staff*

GERMAN 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the adviser to concentrators and the Chairman of the Department. *Staff*

GERMAN 99. Senior Research

Students who are candidates for a degree with honors in German must register for this course and prepare an honors thesis under faculty direction. *Staff*

GERMAN 100aR. German Literature up to 1700**GERMAN 106aR. Advanced Exercises in German Composition and Literary Style*****GERMAN 110a. Introduction to the Life and Works of Goethe****GERMAN 110b. Goethe's "Faust"**

Prerequisite: German 10 or permission of the instructor. *Miss Hourtienne*

GERMAN 120a. Enlightenment, Storm and Stress, Idealism: Lessing and Schiller

Prerequisite: German 10 or permission of the instructor. *Mr. Zohn*

GERMAN 130bR. German Romanticism

Prerequisite: German 10 or permission of the instructor. *Miss Hourtienne*

GERMAN 140a. German Literature in the Nineteenth Century**GERMAN 150b. The German Novelle from Goethe to Thomas Mann****GERMAN 160b. German Drama and Lyric Poetry from Naturalism to the Present**

Prerequisite: German 10 or permission of the instructor. *Mr. Frey*

GERMAN 180aR. Twentieth Century Prose: Mann, Kafka, Hesse**GERMAN 190aR. German Masterpieces in English Translation****Greek**

See Classics.

• Not to be given in 1970-71.

Hebrew

Requirements for Concentration

For requirements for concentration in Hebrew Literature, see *Near Eastern and Judaic Studies*.

HEBREW 1. Introductory Hebrew

Fundamentals of grammar, acquisition of vocabulary, brief compositions and reading of simple texts.

All students will be required to take one hour of laboratory drill and exercise, in addition to the three hours of class, without additional credit.

Open to those students who have not previously had instruction in Hebrew.
Messrs. Fishbane and Segal

HEBREW 2. Intermediate Hebrew

The structural method will be used, aiming at promoting the student's acquaintance with the necessary tools for an active use of the language.

Prerequisite: Hebrew 1 or its equivalent; consent of instructor required.

Mrs. Goldberg

HEBREW H3a. The Hebrew Language (Hiatt Institute in Israel)

Basic grammar; reading of simple texts; composition and conversation with emphasis on the spoken language. 4 credits.

Staff

HEBREW 5. Accelerated Second Year Hebrew

An intensive course for students whose placement score or performance in Hebrew 1 indicates an advanced preparation.

Prerequisite: Permission of the instructor or chairman.

Mrs. Goldberg

HEBREW 10. Introduction to Post-Biblical Hebrew Literature

Excerpts from selected works will be read and analyzed from both the linguistic and the literary points of view.

Prerequisite: Hebrew 2 or its equivalent.

Mr. Brandwein

Also see courses under NEAR EASTERN AND JUDAIC STUDIES.

History

Professor EUGENE C. BLACK, *Chairman*; Professors GEOFFREY BARRACLOUGH, DAVID S. BERKOWITZ, RUDOLPH BINION, JAMES E. DUFFY (Romance Languages), DAVID H. FISCHER, MORTON KELLER, FREDERIC C. LANE (*Visiting*), MARVIN MEYERS, A. C. PARKER (*Visiting*), JOHN WEISS (*Visiting*); Associate Professors JOHN P. DEMOS, MILTON I. VANGER; Assistant Professors JEROLD S. AUERBACH, GERALD L. SOLIDAY; Lecturers J. G. GAGLIARDO, MARSHALL S. SHATZ (*Student Adviser*), RUPERT H. WILKINSON; Instructor JAMES R. GREEN.

Requirements for Concentration

A. All students must satisfactorily complete eight semester courses offered by the History Department. A major's program will be made up on the basis of close and continuous consultation with his or her faculty adviser.

History 98a and b (Readings in History) may be taken by students in the following cases: (a) as preparation for or a supplement to work on the senior honors thesis; (b) on the ground that an area of special interest to the student is not offered in the regular course curriculum. In such cases the student must have the consent of the instructor.

B. Additional requirement for candidates for degrees with distinction: History 99.

HISTORY 1a. The Rise of Western Civilization

The pattern of political, social and intellectual change from the prehistoric era to the eighteenth century. The course analyzes the constituents of western culture and communicates an understanding of historical methods, the main form of historical interpretation, and provides experience in historical writing.

Mr. Gagliardo

HISTORY 1b. Revolution and Modernization

Selected problems in European history from the eighteenth century to the present. Topics include the French Revolution, industrial modernization, urbanization and social conflict, nationalism and imperialism, twentieth-century totalitarianism and war.

Mr. Black

HISTORY 3a. Witchcraft in Historical Perspective

An experimental course, primarily for freshmen. The purposes of the course are twofold: to present some impression of the way historians work in their research and to develop the critical skills needed to evaluate such research. The Syllabus will comprise a selected body of materials on witchcraft, but will hopefully raise broader questions of social control and deviance.

Enrollment limited to 12 students.

Mr. Demos

HISTORY 51a. American Society: Analytical History (1607–1860)

This is an introductory course, but not a traditional narrative survey. Familiar political events will be given little attention. Emphasis will be placed upon the basic intellectual, political, economic and social influences which have shaped American life.

Mr. Fischer

HISTORY 51b. American Society: Analytical History (1860 to the Present)

This course will be conducted along lines parallel to the description of History 51a.

Mr. Wilkinson

HISTORY 96a and b. Junior Research in History

A one-semester course open to concentrators who wish to undertake an independent research project in History.

Staff

HISTORY 97a and b. Contemporary Problems in Historical Perspective (Tutorial)

This course gives students an opportunity to organize tutorials on topics of special interest to them. Initiative for such courses lies entirely with the students themselves. Several persons interested in a particular problem will organize, with the help of a faculty member, a reading program which should not only deal with the problem in its current setting but should also add historical perspective to analysis of the subject.

Mr. Soliday and Staff

HISTORY 98a and b. Readings in History

A supervised reading around a specific theme; discussions and preparation of research paper or equivalent.

Open upon invitation of the Department.

Staff

HISTORY 99. Senior Research

Seniors who are candidates for degrees with honors in history are required to register for this course and, under the direction of a member of the faculty, prepare an honors thesis on a suitable topic.

Staff

HISTORY 111b. Hellenistic Greece

See Classics 111b.

Mr. Beye

HISTORY 112a. Constitutional History of Rome

See Classics 112a.

Mr. Beye

*HISTORY 118a. The Changing Greek City-State

*HISTORY 119b. The Roman Revolution, Part I

See Classics 119b.

*HISTORY 122a. The Rise of Europe

*HISTORY 123a. The Civilization of the Early Middle Ages

*HISTORY 123b. The Civilization of the High and Late Middle Ages

*HISTORY 124b. Politics and Society in the Italian Renaissance

*HISTORY 125a. The Renaissance

*HISTORY 126a. Government and Society in Medieval England

*HISTORY 126b. Government and Society in Modern England

HISTORY 128a. The Reformation

Transformation of the Catholic Establishment in the fifteenth century. The religious revolution of the sixteenth century: Luther, Calvin, Henry VIII, and the radical sects. The Catholic reaction.

Mr. Berkowitz

*HISTORY 129a. Foundations of Modernity: The New Civilization of Europe, 1450–1700

° Not to be given in 1970–71.

HISTORY 130a and b. Revolts and Revolutions in Seventeenth-Century Europe
(Proseminar)

An examination of various uprisings as a means of analyzing seventeenth-century social structure comparatively. The first semester will be devoted to English society before and during the revolution of 1640–60, and the second will take up revolts on the continent, especially those in France and Spain. The course will be divisible, though students interested in comparative social and political history should take it as a full-year course.

Mr. Soliday

HISTORY 133a. The Development of the European City to 1800
(Proseminar)

Political institutions and social structure in various European cities from the High Middle Ages to the end of the eighteenth century. Readings and discussions will be supplemented by frequent lectures.

Mr. Soliday

*HISTORY 133b. Lord and Peasant in Western Europe before 1800

HISTORY 134b. The Development of Absolutism in Early Modern Europe
(Proseminar)

A comparative study of the political and social bases for monarchical absolutism in Europe, with special emphasis on the relationship between royal bureaucracies and local aristocracies in England, France, Spain, and several German states.

Mr. Soliday

*HISTORY 135a. European Culture since the Enlightenment

HISTORY 135b. Ideology and Society

Problems in the relation of ideas and the evolution of modern society from the enlightenment to the contemporary world.

Mr. Weiss

*HISTORY 137a. European Thought and Culture, 1890–1914

*HISTORY 138b. Modern Europe: A Biographical Approach

*HISTORY 139a. World History of the Last Century

*HISTORY 139b. World History of the Last Century

HISTORY 140a. History of International Relations, 1890–1945

A diplomatic historian's interpretation of world history from the fall of Bismarck to the Second World War.

Mr. Parker

*HISTORY 141b. History of Spain from 1700 to the Present

HISTORY 143a. Introduction to Russian Culture and Institutions

The history of Russia from earliest times to 1861, tracing the origins and development of the political, economic, and intellectual themes that have shaped modern Russia.

Mr. Shatz

HISTORY 143b. Modernization and Revolution in Imperial and Soviet Russia

° Not to be given in 1970–71.

The history of Russia from 1861 to the present. Particular attention will be devoted to the political and economic continuities of tsarist and Soviet development and the place of the 1917 revolution in that development. *Mr. Shatz*

HISTORY 144a. Studies in British History—1851 to the Present

Topics from the Crystal Palace to the Beatles, including Victorian society and culture, Britain in the world economy, high liberalism, socialism, and the rise of labor imperialism, Edwardian liberalism, economic decline, democracy and collectivism between the wars, Labor in power, mass culture. *Mr. Black*

*HISTORY 146b. Topics in German History

HISTORY 147a. The Development of the Russian Intelligentsia (Proseminar)

Radical dissidents in Imperial and Soviet Russia.
Enrollment limited to 15.

Mr. Shatz

HISTORY 148b. The Industrialization of Russia (Proseminar)

The distinctive features of Russia's industrial revolution, from the end of the nineteenth century to the present. Comparisons with Western patterns; the impact of industrialization on Russian social, political, and cultural life; Russian critics of industrial society. *Mr. Shatz*

HISTORY 150b. American Colonial History

Major trends in the social, intellectual, and political life of the American colonies, up to about 1750. *Mr. Demos*

HISTORY 151aR. The Founding of the American Republic

An inquiry into the ideas and movements that formed a new republican regime in the United States. How did the Founders understand their heritage and circumstances? What kind of society and nation did they mean to create? What were the sources of division and conflict? *Mr. Meyers*

HISTORY 151b. Democratic Revolution in America

An intensive study of the democratization of social and cultural institutions in the United States, 1790–1830. *Mr. Fischer*

HISTORY 152b. Problems of Democracy in Jacksonian America (Proseminar)

An examination of the nature and consequences of democratization in American society and politics emphasizing issues of interpretation. The point of departure will be Tocqueville's classic analysis of democracy in America. *Mr. Meyers*

*HISTORY 153b. Civil War and Reconstruction

HISTORY 154a. Modern America

An examination of selected twentieth-century problems with emphasis on the perceptions of intellectuals attempting to cope with social change. Readings will consist primarily of radical critiques; extensive class discussion will focus on the contrasting views presented in the readings and by the instructor. *Mr. Auerbach*

^o Not to be given in 1970–71.

HISTORY 154b. The United States between the World Wars
(Proseminar)

A comparative analysis of selected aspects of American society during the 1920s and 1930s. *Mr. Auerbach*

HISTORY 155b. Civil Liberties in the United States

Examination of the historical development of individual liberties with emphasis on the role of government and the relationship between civil liberties and political and social movements. *Mr. Auerbach*

*HISTORY 156b. History of Black America

HISTORY 157a. Political Justice in Modern America
(Proseminar)

The use of legal procedures to achieve political goals. Specific cases (*e.g.* those involving Leo Frank, Tom Mooney, the Scottsboro boys, and Dr. Spock) and theoretical literature will be analyzed. *Mr. Auerbach*

*HISTORY 158b. Topics in the History of American Law
(Proseminar)

HISTORY 160b. Professions and Elites
(Proseminar)

A comparative examination of social mobility and class structure in nineteenth and twentieth century England and America. *Mr. Wilkinson*

HISTORY 163a. The American Political Tradition: Origins to the Civil War

An examination of some critical arguments of American history over the problems of political life. What values and what views of reality guided Americans in their choice of political ends and means? How deep were the conflicts of ideas, how sharp the breaks between generations? Selected contemporary writings will form the primary basis for discussion. *Mr. Meyers*

*HISTORY 164a. The American Polity to 1860

*HISTORY 164bR. Politics of Modern America

HISTORY 165a and b. The Social History of Modern America

An analysis of the transformation of American life wrought by urbanization and industrialization. Discussion of key texts, including fiction. The course will be divisible though students interested in social history should take it as a full year course. *Mr. Green*

HISTORY 166a. The History of American Constitutional Law and Theory

The history of the Constitution and its interpretation by the Supreme Court against the background of political and economic change from the foundation of the Republic to the Civil War. Origins and development of American constitutional thought and institutions, with stress on problems of judicial review and the role of the judiciary in defining the powers and limitations of government. *Mr. Roche*

* Not to be given in 1970-71.



HISTORY 166b. History of American Constitutional Law and Theory

The development of American constitutional law and theory since the Civil War with the emphasis on the adaptation of the Constitution to the changing needs of American society. *Mr. Roche*

HISTORY 167a. History and Psychology

(Proseminar)

An exploration of certain basic themes and problems in "interdisciplinary" study between the fields of history and psychology. Discussion will focus on a range of topics: biography, the social psychology of mass movements, modal personality, etc. Some prior acquaintance with both fields will be helpful. To be run as a conference course with enrollment limited to twelve. *Mr. Demos*

*HISTORY 167b. Topics in the History of American Family Life

*HISTORY 168b. Topics in Twentieth Century American Urban History

HISTORY 169a. History of American Radicalism

(Proseminar)

Readings and discussion of major radical social movements in the United States from the American Revolution to the present. Enrollment limited to twelve students. *Mr. Green*

HISTORY 169b. Working Class History in the United States

(Proseminar)

The study of life and labor of the working class in various stages of industrial America. Enrollment limited to twelve students. *Mr. Green*

HISTORY 171a. Latin American History to 1890

Conquest and Empire in Spanish America and Brazil; the Wars of Independence; formative national years concentrating on Argentina, Brazil, and Mexico. *Mr. Vanger*

* Not to be given in 1970-71.

HISTORY 171b. Latin American History, 1890 to Present

The emergence of mass politics, revolutionary movements, economic change, concentrating on Argentina, Brazil, Mexico, and Cuba. *Mr. Vanger*

HISTORY 176a. Ideology in Twentieth-Century Latin America

(Proseminar)

Analysis of the development of political ideology, including Revolutionary, Catholic, Democratic Action, and *Desarrollista* positions. Readings, discussions, reports, and papers. Permission of the instructor required. *Mr. Vanger*

HISTORY 176b. Latin America in the World, 1810 to Present

(Proseminar)

Relations of Latin America with the rest of the world, especially the United States; the issue of foreign capital and economic development. Previous knowledge of Latin America recommended. *Mr. Vanger*

*HISTORY 180a. East Asian Civilization to the Fourteenth Century

*HISTORY 180b. East Asian Civilization from the Fourteenth to the Nineteenth Century

*HISTORY 181a. China in the Nineteenth and Twentieth Centuries

*HISTORY 181b. Topics in Modern Chinese Foreign Relations

*HISTORY 185a. Studies in Sub-Sahara African History

*HISTORY 185b. Studies in Sub-Sahara African History

*HISTORY 190b. Historiography

The following graduate courses will be open to selected undergraduates with the permission of the instructor:

COMPARATIVE HISTORY 229b. Venice and the Beginnings of Capitalism

COMPARATIVE HISTORY 250b. The Age of the Democratic Revolution

COMPARATIVE HISTORY 260a. Nineteenth Century Industrial Society

COMPARATIVE HISTORY 281b. Seminar on Fascism

COMPARATIVE HISTORY 285a. The Coming of World War II

History of Ideas

Professor ALASDAIR MACINTYRE, *Chairman*; Professors HENRY D. AIKEN (Philosophy), DAVID S. BERKOWITZ (History), PETER DIAMANDOPOULOS (Philosophy), VLADIMIR DEDIJER (Visiting), WALTER LAQUEUR; Associate Professor HEINZ LUBASZ; Assistant Professors GERALD IZENBERG, ROGER SMITH.

* Not to be given in 1970-71.

*HISTORY OF IDEAS 15a. The Idea of Revolution

HISTORY OF IDEAS 99. Research for Undergraduates

Prerequisite: Approval of the department.

Staff

For Undergraduate and Graduate Students

*HISTORY OF IDEAS 140a. Intellectual History of Modern Europe, 1650–1789

HISTORY OF IDEAS 140b. Intellectual History of Modern Europe, 1789–1890

A survey of dominant thinkers and currents of thought, with particular attention to the development of social, political, and economic ideas. *Mr. Izenberg*

HISTORY OF IDEAS 150a. Intellectual History of Contemporary Europe, 1890–1930

A survey of dominant thinkers and currents of thought, with particular emphasis on the disintegration of the rationalist tradition in philosophy, psychology, social thought, in literature and the arts. *Mr. Izenberg*

*HISTORY OF IDEAS 150b. Intellectual History of Contemporary Europe, 1930–1960

HISTORY OF IDEAS 168. Post-Kantian Idealism and its Critics

An extensive examination of Hegel's philosophy. The Marxist, existentialist, and empiricist criticisms of Hegel will be considered.

Students who propose to take the course are advised that it will be an advantage if they have already taken the course on Kant (Philosophy 167a). *Mr. MacIntyre*

HISTORY OF IDEAS 170. The History of Science, 1500–1800

The development of scientific thought in the setting of general intellectual and social change. *Mr. Smith*

HISTORY OF IDEAS 174a. The Development of the Concept of Revolution

The course will outline problems and ideas which led to Charles Darwin's *On the Origin of Species* (1859). *Mr. Smith*

HISTORY OF IDEAS 174b. Philosophical Issues in Darwin's *On the Origin of Species*

Tutorial.

Mr. Smith

HISTORY OF IDEAS 178. Body, Mind and Nature, 1830–1880

A study of the ways man's mind was discussed in the period, with emphasis on public debate of the issues in their cultural setting.

See Philosophy 178.

Mr. Smith

HISTORY OF IDEAS 179b. The Origins and Development of Freudian Theory

A study of Freud's basic theories on individual and social psychology as they developed from *Studies in Hysteria* to *Civilization and its Discontents*.

Mr. Izenberg

* Not to be given in 1970–71.

HISTORY OF IDEAS 185a. Moral Theory and Moral Change

An examination of the relationship of philosophical theories about morality to the moral practice of society and to the historical explanation of moral change. Among the authors to whom special attention will be paid are Kant and Kierkegaard.

Mr. MacIntyre

HISTORY OF IDEAS 186b. Ideology and the Explanation of Belief

A study of the concept of ideology centering on the transformation of Marxism from a critique of European society in the 1840's, into the ideology of the established order of Soviet society, with an emphasis upon the philosophical and methodological problems that arise in the course of explaining the vicissitudes of a belief.

Mr. MacIntyre

*HISTORY OF IDEAS 188a. Socialism and Zionism

HISTORY OF IDEAS 190. Heresy and Dissent

An historical survey of religious and secular form of rebellion and of their relationships to the established order.

Mr. Dedijs

For courses numbered 200 and above, to which juniors and seniors may be admitted by permission of the department and the instructor, see the Graduate School catalog.

Humanities

HUMANITIES 1. Classics of the Western Tradition through the Renaissance

Major texts of the Western tradition with emphasis on the literary representation of experience. The readings, depending on the instructor, may include Homer, Greek Tragedy, Plato, the Old and New Testaments, Virgil, Dante, Chaucer, Shakespeare, and Tolstoi. From time to time Eastern texts, such as the *Bhagavad Gita*, are also taught. This course is open to all undergraduates, and may be divided by petition at midyear.

Mr. Grossman

HUMANITIES 2a and b. Classics of the Western Tradition from the Renaissance to the Present

A study of some of the great authors from the Renaissance (Shakespeare) to the twentieth century, and some of the leading literary forms of the period: the drama, epic, novel, autobiography, satire, and lyric poetry. Attention will be directed particularly to the transition from Classicism to Romanticism.

Messrs. Hindus and Edelstein

HUMANITIES 4a. American Literature from 1832 to 1900

See English 8a.

Miss Clift

HUMANITIES 4b. American Literature from 1900 to 1965

Prerequisite: English 8a.

See English 9aR.

Messrs. Hindus and Swiggart

* Not to be given in 1970-71.

HUMANITIES 6. Leading Ideas and Motifs in Biblical Literature

*See NEJS 96.**Mr. Fishbane*

*HUMANITIES 7. Literature of the Romance Tradition

HUMANITIES 9b. Ancient Greek Religion

*See Classics 9b.**Mr. Fontenrose*

HUMANITIES 13a. The Irrational in Literature

The emphasis will be on the development of stylistic and cultural means for the conveyance of non-rational experiences and attitudes in literary works. Occasional reference will be made to analogous explorations in the other arts and in other disciplines of learning. Examples will be taken from a varied lot of work, but the emphasis will be on material composed of works after Blake and E. T. A. Hoffmann.

Mr. Preyer

HUMANITIES 14a. Introduction to the Bible

*See NEJS 14a.**Mr. Glatzer*

HUMANITIES 14b. Introduction to the Bible

*See NEJS 14b.**Mr. Glatzer*

HUMANITIES 15a. The Greeks

Greek culture seen through Greek literature. Homer, Aeschylus, Sophocles, Euripides, Aristophanes, and Plato. Topics include: changing concepts of heroism, ideas about the gods and human ethical awareness, effects of the Peloponnesian War, Athens as an idealized city-state, interpreting classical texts.

This course will be taught as a dialogue between Miss Staves and Mr. Stewart.

See Classics 15a.

HUMANITIES 16b. Christianity

This course introduces the student to the development of Christianity in the West and attempts to provide some understanding of Christian thought. Topics include New Testament history, Biblical exegesis, Christian doctrine, moral theology, and mysticism. Readings in the *New Testament*; *The Book of Common Prayer*; *The Second Sheperds' Play*; Dante's *Divine Comedy*; St. John of the Cross; Thomas Merton's *The Ascent to Truth*; Bunyan's *Pilgrim's Progress*; Fielding's *Joseph Andrews*; Rudolf Bultman, et al, *Kerygma and Myth*; Kierkegaard's *Either/Or*.

*See English 30b.**Miss Staves*

HUMANITIES 61b. The Modern Novel

A study of the novels of the last century which stress two basic types: the epic novel which takes a whole civilization as its subject, and the more inwardly directed, psychological fiction which focusses upon the individual who feels lost and estranged in a complex, mass society.

Mr. Hindus

* Not to be given in 1970-71.

Italian Language and Literature

ITALIAN 1. Introductory Italian

Italian 1 is a full year course and may not be dropped with credit at midyear.
Mr. Kertesz

*ITALIAN 3b. Conversation and Composition

ITALIAN 5a. Accelerated Second Year Italian

An intensive one-semester course for students whose placement score or performance in Italian 1 indicates an advanced preparation.

Prerequisite: Permission of the Coordinator or the Chairman. Mr. Kertesz

ITALIAN 10a and 10b. One Semester: Readings in Italian Literature;

One Semester: Dante

Prerequisite: Italian 5a, appropriate placement score, or permission of the instructor. Mr. Kertesz

ITALIAN 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the adviser to concentrators and the Chairman of the Department.

Mr. Kertesz

*ITALIAN 110b. Modern Italian Fiction: From Verga and Pirandello to Moravia and Vittorini

Prerequisites: Italian 10 or permission of instructor.

Latin

See Classics.

Latin American Studies

Assistant Professor JOAN BAMBERGER, *Chairman*; Professors JAMES E. DUFFY, DENAH L. LIDA (*Student Adviser for Spanish*), ROBERT A. MANNERS, RICHARD S. WECKSTEIN; Associate Professors ANDRÉE M. COLLARD, GEORGE L. COWGILL, DONALD HINDLEY (*Student Adviser for Politics*), ROBERT HUNT, DAVID KAPLAN, BENSON SALER, MILTON I. VANGER; Assistant Professors CRAIG MORRIS, LUIS E. YGLESIAS, LOIS WASSERSPRING; Lecturer BARBARA SOLOW.

Requirements for Concentration

A. Anthropology 143b or 144b; History 171a and 171b; Spanish 106bR; Politics 144a and 144b.

B. At least two semester courses from: Anthropology 11a or 144aR or 145b; Economics 28b, 75a; History 141b or 176a or 176b; Politics 13b; Spanish 160aR or 160bR or 162a.

° Not to be given in 1970-71.

C. At least four semester courses in one discipline: Anthropology, History, Spanish, Politics. These may include courses selected under Requirement B, but not under Requirement A.

D. Senior Honors: Candidates for degrees with distinction must be approved by the Committee and complete Latin American Studies 99.

LATIN AMERICAN STUDIES 98a,b. Independent Study

Readings and reports under faculty supervision. May be taken only with the permission of the Chairman. *Staff*

LATIN AMERICAN STUDIES 99. Senior Research

Students who are candidates for degrees with distinction must register for this course and prepare an honors thesis under faculty direction. *Staff*

ANTHROPOLOGY 11a. Anthropology and the Problems of Developing Areas *Mr. Manners*

ANTHROPOLOGY 124a. Civilizations of Mesoamerica *Mr. Cowgill*

ANTHROPOLOGY 143b. Modern Cultures of Middle America *Mr. Hunt*

*ANTHROPOLOGY 144a. The Cultures of Native South America

*ANTHROPOLOGY 144b. Folk and Peasant Cultures of South America

*ANTHROPOLOGY 145b. Development of Andean Civilization

ECONOMICS 28b. Economics of Modern Colonial Empires *Mrs. Solow*

ECONOMICS 75a. The Economics of Underdeveloped Countries *Mr. Lefebvre*

*HISTORY 141b. History of Spain from 1700 to Present

HISTORY 171a. Latin American History to 1830 *Mr. Vanger*

HISTORY 171b. Latin American History, 1890 to Present *Mr. Vanger*

HISTORY 176a. Ideology in Twentieth Century Latin America *Mr. Vanger*

HISTORY 176b. Latin America in the World, 1810 to Present *Mr. Vanger*

POLITICS 13b. Introduction to the Politics of Non-Western States *Mr. Hindley*

POLITICS 144a. The Politics of Northern Latin America *Miss Wasserspring*

POLITICS 144b. The Politics of Southern Latin America *Mr. Hindley*

SPANISH 106bR. Studies in Advanced Spanish Conversation and Composition *Mrs. Lida*

SPANISH 160aR. Readings in Latin American Literature *Miss Collard*

SPANISH 160bR. Latin American Literature: The Revolution *Mr. Yglesias*

*SPANISH 162a. Argentine and Brazilian Literature

* Not to be given in 1970-71.

Linguistics Program

Coordinator: Associate Professor SAMUEL JAY KEYSER.

The undergraduate program in Linguistics is designed to give students a foundation in the study of language. It will enable the student to coordinate an integrated program in Linguistics with his chosen area of concentration. Successful completion of the program will be indicated on the student's record.

Requirements for Concentration

Required of all Candidates: A total of six semester courses, four chosen from those listed in Group I below and the remaining two from either Group I or Group II.

English 191a or 191b will be normally taken first.

Each student in the program will be assigned an adviser from among the following faculty members: Mr. David Hanson, Mr. Ray Jackendoff, Mr. Jay Keyser.

Students may petition for changes in the above program.

Group I

ENGLISH 191a. Introduction to Linguistics

ENGLISH 191b. Introduction to Linguistic Structure

*ANTHROPOLOGY 102b. Anthropological Linguistics II

ENGLISH 192b. History of the English Language

ENGLISH 193a. Problems in Phonology

ENGLISH 196a. Semantics and Linguistics

*ENGLISH 196b. Universal Grammar

ENGLISH 197a. Problems in Syntax

ENGLISH 197b. Syntactic Theory

Group II

LINGUISTICS 98a and b. Independent Study

Independent reading and research under the direction of a faculty supervisor.
Staff

* Not to be given in 1970-71.

LINGUISTICS 99. Senior Research

This course involves the student in an independent research project under the supervision of a staff member. The student's findings are to be presented in writing and defended orally before a committee of staff members.

To enroll, a student must have an honor record in Linguistics and the consent of the staff member who will serve as research supervisor. *Staff*

*ANTHROPOLOGY 102a. Anthropological Linguistics I

PHILOSOPHY 15a. Logic

PHILOSOPHY 160b. Linguistic Philosophy

PSYCHOLOGY 144b. Psychology of Language

RUSSIAN 97c. Tutorial

*RUSSIAN 112aR. Theory of Language

RUSSIAN 161b. The Structure of Modern Literary Russian

Graduate courses may be taken with special permission of the appropriate department.

Mathematics

Professor ROBERT T. SEELEY, *Chairman*; Professors MAURICE AUSLANDER, EDGAR H. BROWN, JR., DAVID A. BUCHSBAUM (*Undergraduate Adviser*), SAMUEL GITLER (*Visiting*), HAROLD I. LEVINE, JEROME P. LEVINE (*Graduate Adviser*), TERUHISA MATSUSAKA, ALAN L. MAYER, RICHARD S. PALAIS, HUGO ROSSI; Associate Professor PAUL H. MONSKY; Assistant Professors ALDRIDGE K. BOUSFIELD, DAVID I. LIEBERMAN, MICHAEL I. SHUB; Lecturers DAVID EISENBUD, JAMES LEPOWSKY, JOAN D. LUKAS.

Requirements for Concentration

There are two requirements for concentration. The first is Mathematics 21a and b or Mathematics 22. The second is an approved schedule of courses which must contain at least four semester courses in Mathematics numbered 29 or higher. In this way a student may concentrate in Mathematics jointly with another field of concentration.

For a degree with distinction, six semesters of Mathematics courses numbered 29 or higher are required, as well as an additional year in a cognate field and the entire program must include at least two full year courses in Mathematics. Students intending to pursue graduate study are strongly urged to take a degree with distinction and include at least one 100 level course among their selections.

Information for Freshmen

The Department will recommend a particular mathematics course for each entering student; the recommendation is based upon an estimate of the student's ability and preparation.

* Not to be given in 1970-71.

All mathematics courses numbered 30 or higher will presuppose a knowledge of linear algebra.

Concentrators will have covered this material in Mathematics 21a. Non-concentrators desiring to take upper level mathematics courses should satisfy this prerequisite by taking either Mathematics 21a (fall term) or Mathematics 20b (spring term); Mathematics 20b is also designed for students who wish to learn linear algebra without necessarily taking any other mathematics courses.

Mathematics 10, 11 and 12 will have an optional fourth class hour each week devoted to the mechanical aspects of the subject. Students are strongly advised to attend.

Primarily for Undergraduates

MATHEMATICS 1a and b. Introduction to Mathematical Concepts

This course, designed for students who do not plan to major in the sciences, will attempt to examine changing conceptions of and philosophical assumptions about the nature of mathematics and its relation to the real world. This will be done largely in terms of the historical development of mathematics, focusing attention on a small number of mathematical topics. To some extent, readings will include parts of the relevant original mathematical works, together with historical background. Mathematical techniques will be developed only so far as is necessary to make these readings intelligible.

Either half of this course may be taken separately; Mathematics 1b is not designed as a continuation of Mathematics 1a. Rather, the two will to an extent complement each other though historical periods covered may overlap considerably.

Fall Term: *Mr. Lieberman*

Spring Term: *Mr. Brown*

MATHEMATICS 10. The Calculus I

An introduction to the basic concepts and techniques of calculus. *Mr. Mayer*

MATHEMATICS 11. The Calculus I

A more thorough and more theoretical treatment of calculus than is provided by Mathematics 10. *Mr. Monsky*

MATHEMATICS 12. Introduction to Analysis I

A rigorous and theoretical introduction to the three fundamental branches of modern mathematics—algebra, analysis, and topology. Mathematics 12 and 22 will include the content of Mathematics 11 and 21 and will, in addition, introduce important aspects of modern mathematics not usually covered in the calculus sequence. Mathematics 12 can be expected to demand considerably more ability and effort than Mathematics 11. *Mr. Shub*

MATHEMATICS 20a. The Calculus II

Continuation of Mathematics 10. Further topics in calculus of one variable; introduction to calculus of several variables.

Prerequisite: Mathematics 10, 11, or 12.

Mr. Matsusaka

MATHEMATICS 20b. Linear Algebra

Linear algebra for real and complex vector spaces. Mathematics 20b may not be taken for credit in addition to Mathematics 21a. No prerequisites.

Mr. Matsusaka

MATHEMATICS 21a. Linear Algebra and Linear Differential Equations

Continuation of Mathematics 11. Linear algebra for real and complex vector spaces, with applications to linear differential equations.

Prerequisite: Mathematics 11 or 12. Students who wish to take this course and who have not taken Mathematics 11 or 12 must pass an examination which will be given at the beginning of the fall term. *Mr. H. Levine*

MATHEMATICS 21b. The Calculus II

Calculus of several variables, using linear algebra.

Prerequisite: Mathematics 21a. *Mr. H. Levine*

MATHEMATICS 22. Introduction to Analysis II

Continuation of Mathematics 12.

Prerequisite: Mathematics 12 or consent of instructor. *Mr. Palais*

*MATHEMATICS 29a and b. Introductory Numerical Analysis

MATHEMATICS 30b. Modern Algebra

An introduction to groups and commutative algebra. Topics covered will include quadratic forms and orthogonal transformations, Jordan canonical form (via principal ideal domains), the fundamental theorem of abelian groups, and the Sylow theorems.

Prerequisite: Mathematics 21 or consent of instructor. *Mr. Bousfield*

*MATHEMATICS 32. Differential Geometry

MATHEMATICS 33a and b. Selected Topics in Algebra

Sets, abelian groups, commutative rings, principal ideal domains, Dedekind rings, modules and introduction to homological algebra.

Prerequisite: Mathematics 22 or 30. *Mr. J. Levine*

MATHEMATICS 34b. Elementary Topology

Introduction to point-set and algebraic topology including such topics as knots, classification of surfaces, covering spaces, homology and homotopy groups. *Staff*

*MATHEMATICS 35a and b. Advanced Calculus

*MATHEMATICS 36a. Probability

MATHEMATICS 38b. Elementary Number Theory

Selected topics in elementary number theory including prime factorization, congruences, primitive roots of unity, quadratic reciprocity, lattice points.

Prerequisite: Consent of the instructor. *Mr. Buchsbaum*

*MATHEMATICS 39a. Special Functions and Their Applications

* Not to be given in 1970-71.

MATHEMATICS 40. Real Analysis

Abstract metric spaces, completion, Banach spaces, Hilbert space, Measure theory in Euclidean space, L^p spaces, Fourier transforms. The Fredholm alternative, eigenfunction expansions for self-adjoint compact operators. Applications to ordinary differential equations. (If the class has the necessary background, some methods from complex variables may be used. The second semester may be influenced by the inclinations of the class, for example, in the following directions: abstract measure theory, the spectral theorem in Hilbert space, Haar measure, the theory of distributions.)

Mr. Seeley

MATHEMATICS 45a. Special Topics in Analysis

Analytic and harmonic functions in special planar domains; Fourier series and potential theory.

Mr. H. Levine

MATHEMATICS 45b. Complex Analysis**MATHEMATICS 49b. Introduction to Mathematical Economics, Linear Economic Models*****MATHEMATICS 63. History of Mathematics****MATHEMATICS 64a. Seminar in Topology**

Reading, discussion, and reports on such topics as classification of surfaces, covering spaces, homotopy groups, knots, topological groups, and fibre bundles.

Prerequisite: Mathematics 34.

Mr. Bousfield

MATHEMATICS 88b. Theory of Recursive Functions

This course is designed to bring to a wider audience the methods and results of a field which traditionally belongs to mathematical logic. It would be of particular relevance to those whose primary interest is in computer science or philosophy of mathematics. Prerequisite to this course would be a background in mathematical logic or computer science.

Mrs. Lukas

MATHEMATICS 99. Senior Research

Staff

For Undergraduate and Graduate Students

All undergraduates who plan to take a graduate course in mathematics must arrange for an interview during registration week and must obtain written departmental approval at that time.

MATHEMATICS 101a and b. Algebra I

Groups, rings, fields, Galois theory, representations and modules.

Mr. Matsusaka

MATHEMATICS 111a and b. Analysis I

Metric spaces, Frechet differentiability, fundamental existence theorems, complex variables and Lebesgue integration.

Mr. Mayer

MATHEMATICS 115a. Logic

See Philosophy 115a.

Mr. van Heijenoort

* Not to be given in 1970-71.

MATHEMATICS 121a and b. Topology I

Set theory, topological spaces, function spaces and covering spaces.

Mr. Brown

*MATHEMATICS 125bR. Foundations of Mathematics

See Philosophy 121bR.

See Graduate School catalog for courses numbered 200 and above.

Mediterranean Studies

Professor CYRUS H. GORDON, *Chairman*; Professor ERNEST R. LACHEMAN (Adjunct); Associate Professor LOUIS V. ZÁBKAR; Assistant Professors GORDON D. NEWBY (Student Adviser), IAN A. TODD.

Requirements for Concentration

A. Required of all Candidates: Four full year courses within the department as approved by the student adviser.

Undergraduates majoring in Mediterranean Studies can also pursue directed programs embracing interdepartmental courses focused on special Mediterranean themes. In 1970–71, for example, such programs will include The Golden Age of Spain for students capable of doing advanced work in Arabic or Hebrew, plus Spanish or Portuguese. Students interested in this or other interdepartmental programs are invited to discuss them with the Student Adviser.

B. Candidates for distinction must in addition write an honors paper in the senior year (under Mediterranean Studies 99).

*MS 12. Archaeology of Syria-Palestine

MS 14. The Archaeology of the East Mediterranean

A general survey from the earliest periods to the end of the Late Bronze Age. This course will be conducted in a way to prepare students for field work as members of archaeological expeditions.

No prerequisites.

Mr. Todd

MS 98. Directed Readings in Mediterranean Studies

Staff

MS 99. Senior Honors Research

Concentrators will be guided by their major professor in writing their honors paper.

Staff

*MS 100a. The Mediterranean in Antiquity

MS 100b. Introduction to the Islamic Mediterranean

The main developments from the Islamic Conquest to the Renaissance, stressing the interplay of European and Afro-Asiatic forces in the formation of the modern West. The lectures will be supplemented by readings in medieval and modern historians.

Mr. Newby

* Not to be given in 1970–71.

MS 101a. Mediterranean Civilization and Its Influence on the Outside World

Lectures and discussions on the ancient Mediterranean as a creative cultural center with a virtually world-wide communications capability. The influence of marine archaeology, outside influences on the Mediterranean, and the emerging pattern of cultural diffusion that stimulated all high civilizations, are among the themes of the course. In 1970–71 the Iron Age will be covered.

Students may repeat MS 101 for credit because the subject matter will change completely from year to year in a four-year cycle.

No prerequisites.

Mr. Gordon

*MS 102. History of Syria-Palestine

*MS 103a. Egyptian History

MS 108a. Literary History of the Mediterranean

An examination of the culture of the ancient Mediterranean through its literatures in translation. Texts will be supplemented with readings from various modern authors and historians.

Mr. Newby

MS 109a. Cultural History of Mesopotamia

The institutions, daily life and material culture of Sumer, Babylonia and Assyria.

Mr. Lacheman

MS 109b. Mesopotamia and Canaan

A study of the influence exerted by Mesopotamia on the West with special reference to Old Testament problems.

Mr. Lacheman

*MS 113a. Archaeology of Egypt

MS 114a. Archaeology of New Kingdom Egypt

In this course the art and architecture of the New Kingdom will be surveyed with an emphasis on the temples and tombs of the Theban area.

Mr. Zăbkar

*MS 115. Archaeology of Anatolia

MS 116a. Archaeology of Cyprus

Archaeology of Cyprus from the aceramic Neolithic period through the Late Bronze Age.

Mr. Todd

MS 116b. Archaeology of the Aegean

Archaeology of the Aegean from the aceramic Neolithic period through the Late Bronze Age.

Mr. Todd

*MS 118b. Physical Methods of Archaeological Search

*MS 123. Biblical Texts Pertaining to the United Monarchy

MS 124a. Aramaic

Aramaic Incantation Bowls will be read and interpreted so as to bring out the role of magic in Talmudic Babylonia.

Prerequisite: A knowledge of Biblical Aramaic, or the Targumim or Syriac.

Mr. Gordon

° Not to be given in 1970–71.

MS 124b. Mandaic

Magic Bowls of the Mandeans from Iraq and Iran will be read and discussed with a view to understanding gnostic and various pagan elements in late antiquity.

Prerequisite: MS 124a.

Mr. Gordon

MS 125. Classical Arabic Texts

This course is designed to induct the student into the use of classical Arabic texts for historical studies.

Open to students beginning Arabic but also recommended for those with some previous knowledge of the language in need of a methodical review.

Mr. Newby

*MS 126. History and Sources of the Crusades

MS 130. Elementary Akkadian

A study of Ungnad's Grammar and readings of selected texts in cuneiform.

Mr. Lacheman

*MS 136. Hittite

MS 138a. Introduction to Ugaritic

Grammar and poetic texts in C. H. Gordon's *Ugaritic Textbook*, 1967, will be read with constant reference to biblical and classical literatures. Students may take this course for credit more than once, because the tablets read in class will not repeat those studied in former years.

Prerequisite: A knowledge of biblical Hebrew.

Mr. Gordon

*MS 139. Advanced Ugaritic

MS 140. Elementary Egyptian

A study of Middle Egyptian based on Gardiner's and other grammars. The principal texts to be read will be those included in Sethe's *Lesestücke* and de Buck's *Readingbook*. In the second semester some middle Egyptian hieratic will be read.

Mr. Zábkar

*MS 141. Late Egyptian Stories

*MS 151a. Hesiod and the Epic Cycle

MS 152b. Greek Historians

Book I of Diodorus of Sicily will be read and discussed in the light of Egyptian archaeological and historical records.

Prerequisite: A knowledge of Greek.

Mr. Zábkar

*MS 153b. The Minoans and Mycenaeans

MS 161b. Lucius Septimius

Dictys Cretensis will be read with reference to the light it sheds on the Epic Cycle and on the problem of Eteocretan.

Prerequisite: A knowledge of Latin.

Mr. Gordon

Music

Associate Professor PAUL H. BRAINARD, *Chairman*; Professors ARTHUR BERGER, HAROLD S. SHAPERO, SEYMOUR J. SHIFRIN; Associate Professors MARTIN BOYKAN, ROBERT L. KOFF, CALDWELL TITCOMB, LEO TREITLER; Assistant Professors LOUIS S. BAGGER, EDWARD COHEN (*Student Adviser*); Instructor JOSHUA RIFKIN; Lecturers JOEL COHEN, MADELINE S. FOLEY; Consultants MAYNARD GOLDMAN, GEORGE ZILZER.

The program of concentration aims to provide an awareness of the systematic basis of music and its history, skill in the use of theoretical and compositional tools, and a close acquaintance with representative musical literature.

Before admission to concentration, candidates will normally pass Music 61 during their freshman year, with a satisfactory grade, and must demonstrate competence at the keyboard, in sight reading, and in aural perception. Instruction under the Basic Piano program is offered during the sophomore and junior years for those who are deficient at the keyboard. The required proficiency must normally be demonstrated by the end of the junior year. No fee is charged for this instruction and no credit is granted.

Requirements for Concentration

A. Required of all Candidates: Music 61, 101, 162, 163, 165a, 197a or b, and two of the following: 122a, 123b, 125a, 128b (six year courses).

All concentrators in Music are also expected to participate regularly in the Chorus or Ensemble Workshop, and in the non-credit Music Colloquium. Not more than a total of 6 credits in Music C and E will be counted toward the A.B. degree. Consult Music C and E below for the conditions under which degree credit is granted for these activities.

B. Additional Requirement for candidates for degrees with distinction: To be eligible for honors in music at graduation candidates must demonstrate superior ability through their over-all record, and a capacity for independent thought beyond the limits of their course program.

Primarily for Undergraduates

MUSIC 1a. Introduction to Music—Part I

A general introduction to the materials and forms of music, and a study of musical literature.

Two lectures and one section meeting weekly, with training in analytical listening, based on selected listening assignments.

Open to non-concentrators. It is assumed that the student has no previous knowledge of music.
Mr. Rifkin

*MUSIC 1b. Introduction to Music—Part II

* Not to be given in 1970–71.

MUSIC 5b. Fundamentals of Music

Elementary theory for the general student with little or no musical background; notation, scales and melody construction, with stylistic analysis in selected areas of music in which melodic structure plays a predominant role. *Miss Foley*

MUSIC 34a. The Literature of Chamber Music: Baroque and Classical

Prerequisite: Music 1a or permission of the instructor. *Given in alternate years.* *Mr. Koff*

***MUSIC 35b. The Literature of Chamber Music: Romantic and Modern**

Prerequisite: Music 1a or permission of instructor. *Given in alternate years.*

MUSIC 37b. The Symphony

A survey of the symphonic literature from the works of Haydn and Mozart through the twentieth century.

Prerequisite: Music 1a or permission of instructor.

Mr. Titcomb

***MUSIC 38b. The Opera**

Given in alternate years.

MUSIC 45a. Beethoven

A study of the man and his works.

Mr. Bagger

* Not to be given in 1970-71.



MUSIC 61. Theory I

Elementary harmony and counterpoint. The tonal system; scales, intervals, triads, seventh chords. Strict counterpoint in five species.

Before admission to the course, students must pass a preliminary ear test and will be expected to demonstrate minimal ability to read music.

Three class meetings and three hours of laboratory work (keyboard harmony, ear-training, analysis).

Students intending to concentrate in Music should pass this course with a satisfactory grade in the freshman year unless they have an equivalent preparation. In no case may a student take the course later than the sophomore year.

Mr. Edward Cohen

MUSIC 98a,b. Readings in Music History and Theory

Open to qualified undergraduates.

Staff

MUSIC 99c. Senior Research

Independent study under faculty supervision. A student whose grade point average in music is 3.0 or above may petition at the end of his junior year for permission to enter this course.

Staff

MUSIC 101. History of Music

A survey of Western art music. Examination of representative works in a historical and analytical context.

Prerequisite: Music 61. Normally to be taken in the sophomore year.

Mr. Treitler

MUSIC 122b. Medieval and Renaissance Periods

Selected topics in the history of music to *ca.* 1600.

Prerequisite: Music 101.

For concentrators in Music. Open to advanced non-concentrators with permission of instructor.

Mr. Rifkin

MUSIC 123b. Baroque and Pre-Classical Periods

Selected topics in the history of music, *ca.* 1600–1770.

Prerequisite: Music 101.

For concentrators in Music. Open to advanced non-concentrators with permission of instructor.

Mr. Bagger

MUSIC 125a. Classical and Romantic Periods

Selected topics in the history of music, *ca.* 1770–1900.

Prerequisite: Music 101. *For concentrators in Music. Open to advanced non-concentrators with permission of instructor.*

Mr. Titcomb

***MUSIC 128b. Twentieth Century**

Prerequisite: Music 101.

For concentrators in Music. Open to advanced non-concentrators with permission of instructor.

Given in alternate years.

* Not to be given in 1970–71.

MUSIC 134c. Studies in the Analysis and Performance of Chamber Music

Discussion of advanced problems in performance and interpretation. Written work will include papers on selected topics.

Two hours a week. In addition, required laboratory sessions include participation in Music E for which no additional credit is given.

Prerequisite: Advanced instrumental proficiency and permission of the instructor.
Mr. Koff

MUSIC 162. Theory II

Intermediate harmony and counterpoint. Secondary sevenths, ninths, altered chords. Tonal counterpoint.

Laboratory three hours per week: keyboard harmony, ear-training, analysis.
Mr. Bagger

MUSIC 163. Theory III

Advanced harmony and counterpoint. Chromatic harmony. Modal counterpoint. Introduction to twentieth century materials.

Laboratory three hours per week: keyboard harmony, ear-training, analysis.
Mr. Shifrin

MUSIC B. Basic Piano

Instruction for concentrators deficient at the keyboard.

No fee. No credit.

Mr. Zilzer

MUSIC C. Chorus

The Brandeis Choral Union consists of the Brandeis Chorus, open to all qualified undergraduate and graduate students, and the Brandeis Chamber Chorus, a smaller group of more advanced singers devoted to performance of contemporary music.

Two credits per annum. No credit is given for one semester's participation, nor is credit given for two separate semesters in different years. Maximum credit is six semester hours. This course may not be counted in computing the student's total work load. An excessive number of unexcused absences will disqualify students from receiving credit. Chorus may be taken as an extra-curricular activity without credit.

Three hours each week.

Mr. Joel Cohen

MUSIC E. Ensemble and Orchestra

Two credits per annum. Open to qualified instrumentalists interested in the performance of chamber and orchestral music. Although this is an independent activity it also serves as a laboratory for Music 134c. Maximum credit, six semester hours. No credit is given for anything less than one continuous year's activity. Members of this group will join with the Chorus from time to time in the performance of larger scale works.

Requirements for admission: An audition before the supervisor of performing activities and his staff.
Mr. Koff and Staff

MUSIC M. Advanced Instrumental and Vocal Instruction

For Music concentrators only.

Private study with teachers approved by the department. Limited grants in aid, when available, will be allocated on a competitive basis to concentrators who, in an audition before a faculty panel, exhibit unusual talent in performance, and who demonstrate financial need.

No credit.

For Undergraduates and Graduates**MUSIC 165a. Elementary Orchestration**

The instruments of the orchestra: their construction, ranges, and playing techniques, with a consideration of their use by major composers; the methods of writing effectively for present-day instruments, individually and in combination; the mechanics of reading and writing a score.

Written exercises, analysis of scores, study of recorded performances, and live demonstrations.

Prerequisite: Music 61. Music 162 or 163 is also recommended.

Mr. Shapero

***MUSIC 168a and b. Renaissance and Baroque Keyboard Music**

Prerequisite: Music 162 or its equivalent, or permission of instructor. *Given in alternate years.*

***MUSIC 171a. History and Practice of Music Criticism**

Prerequisite: A knowledge of music history and theory.

Given in alternate years.

***MUSIC 180b. Ethnomusicology**

Prerequisite: Music 162 (or the equivalent) or a course in Anthropology.

Given in alternate years.

***MUSIC 194b. Problems in Cultural Historiography**

Readings and discussions concerning the conceptual foundations of historical study in the arts: the relation between history and criticism; the history and function of style-period concepts; evolutionary and developmental theories; modes of explanation in cultural history.

Prerequisite: Permission of instructor. *Given in alternate years.*

MUSIC 197a. Tutorial in Music History and Literature

Guided reading and research in the history and literature of music.

Mr. Edward Cohen

MUSIC 197b. Tutorial in Musical Analysis

Basic analytical problems of the music of the twentieth century, approached through detailed study of a few representative works.

Mr. Edward Cohen

° Not to be given in 1970-71.

MUSIC COLLOQUIUM

Discussions of special topics led by the faculty and occasional guests. Some of the sessions will include performances of new works. Required of graduate students and concentrators in music.

No credit.

Staff

See Graduate School catalog for courses numbered 200 and above.

Near Eastern and Judaic Studies

Professor NAHUM M. SARNA, *Chairman*; Professors ALEXANDER ALTMANN, NAFTALI C. BRANDWEIN, NAHUM N. GLATZER, BENJAMIN HALPERN, MARSHALL SKLARE; Dean LEON A. JICK; Associate Professor DWIGHT W. YOUNG (*Graduate Student Adviser*); Assistant Professor JOSEPH LUKINSKY; Lecturers PHILIP ARIAN, (*Visiting*), EMANUEL S. GOLDSMITH, BERNARD REISMAN, JOSHUA ROTHENBERG; Instructors ROBERT DANKOFF, MICHAEL FISHBANE (*Undergraduate Student Adviser*), DAVID SEGAL; Teaching Assistants FRANCES HOFFMAN, ARIELLA GOLDBERG, LAURENCE J. SILBERSTEIN.

Requirements for Concentration

Each student will prepare his plan of study with his faculty adviser. The student must take four and one-half year courses beyond the level of Hebrew 10.

A. Required of all Candidates:

1. Hebrew 1, 2, 10, or their equivalent.
2. One semester course in Biblical Studies.
3. One semester course in Jewish history; ancient, medieval, or modern.
4. One semester course in Jewish philosophy, mysticism, or ethics, classical or modern.
5. One semester course in modern Hebrew literature, prose or poetry.

B. Elective Courses: Select two and one-half year (or five semester) courses in the NEJS program to fill out the requirement of four and one-half courses. Concentrators who take Arabic may be exempt from the equivalent courses in Hebrew language and literature.

C. Additional requirement for candidates for degrees with distinction: NEJS 99.

Primarily for Undergraduates

NEJS 14a. Introduction to the Bible

Major themes of Biblical writing, considered against a background of history and religious thought. Selected portions of the Bible in English translation will be studied.

See Humanities 14a.

Mr. Glatzer

NEJS 14b. Introduction to the Bible

Continuation of NEJS 14a. The Prophets (Ezekiel, Second Isaiah, Jonah); The Writings; The New Testament background of early Christianity.

See Humanities 14b.

Mr. Glatzer

NEJS H20a. Modern Jewish History (Hiatt Institute)

A survey course, beginning with the Enlightenment in Western Europe, emphasizing the issues of Jewish emancipation and the creation of the State of Israel.

Mr. Mevorach

NEJS 21. Introductory Yiddish

See Yiddish 1.

Mr. Szulkin

NEJS 24. Intermediate Yiddish

Readings in Yiddish literature. Conversation, composition, and grammar.

Prerequisite: Introductory Yiddish or permission of instructor.

See Yiddish 2.

Mr. Rothenberg

NEJS 25. Readings in Yiddish Literature

See Yiddish 10.

Mr. Goldsmith

NEJS 60. Book of Genesis

A thorough study of the Hebrew text. The course will deal with the religion, history and literature of the Patriarchal period with reference to Near Eastern materials.

Prerequisite: Hebrew 2 or equivalent.

Mr. Fishbane

*NEJS 61. Prophecy and Divination

NEJS 64b. Modern Jewish Thought

The ideological trends in modern Jewry after the Enlightenment period. The philosophies of Hermann Cohen, Martin Buber, Franz Rosenzweig, and Mordecai Kaplan will be analyzed.

Mr. Glatzer

NEJS 70. Spanish Jewish Civilization (596–1492)

An introduction to the major trends and movements in Jewish Spain; messianism, Jewish autonomy and communal life; toleration and persecution; "secular" learning and the cultural renaissance, philosophy, mysticism, traditionalism; Jewish sectarianism; religious polemic.

Mr. Segal

NEJS 96. Leading Ideas and Motifs in Biblical Literature

A survey of the major themes and motifs in biblical literature intended for undergraduate students. There are no linguistic requirements.

See Humanities 6.

Mr. Fishbane

NEJS 98a and b. Independent Study

Staff

NEJS 99. Senior Research

Staff

* Not to be given in 1970–71.

For Undergraduate and Graduate Students

*NEJS 100b. The Bible in its Ancient Context

NEJS 101. Basic Arabic

An introduction to literary Arabic. Drills in grammar, pronunciation, and composition. Reading of graded classical and modern texts.

Open to students who have not previously had instruction in Arabic.

Mr. Dankoff

NEJS 102. Intermediate Arabic

Study of advanced grammatical and syntactical forms. Reading of related classical and modern texts. Drills in pronunciation and composition.

Prerequisite: NEJS 101 or its equivalent.

Mr. Dankoff

*NEJS 104b. Aramaic Dialectology

NEJS 106a. Introduction to Ugaritic

See MS 138a.

Mr. Gordon

NEJS 107. Elementary Akkadian

See MS 130.

Mr. Lacheman

*NEJS 108a. Comparative Grammar of the Semitic Languages

*NEJS 109a. The Patriarchal Period in the Light of Near Eastern Documents

NEJS 110b. Problems in Biblical History

An intensive examination of crucial periods in the history of ancient Israel. Extra-biblical materials will be correlated with selected classical Hebrew texts.

Prerequisite: A reading knowledge of Hebrew.

Mr. Young

NEJS 114a. The Book of Amos

An intensive examination of textual and exegetical problems; the historical background; the leading ideas and concepts.

Prerequisite: Hebrew 10 or its equivalent.

Mr. Sarna

NEJS 117a. The Book of Job and the Problem of Evil

A reading of the Book of Job (in English translation) and a discussion of the role of the book in the literature and thought of the western world; the problem of evil in Judaism and Christianity.

Mr. Glatzer

*NEJS 122a. Readings in Talmudic Literature

NEJS 123a. Yehuda Ha-Levi's *Kuzari*

Analysis and interpretation of the Hebrew text.

Mr. Altmann

* Not to be given in 1970-71.

*NEJS 123b. Classical Bible Commentaries

NEJS 125b. Midrashic Literature: Selected Texts from Genesis Rabba

A study of the earliest documents of Midrashic speculation on cosmological and kindred problems. Tracing of Hellenistic, especially Gnostic, sources.

Mr. Altmann

NEJS 126b. The History of the Jews in Modern Times

The Jews of France under the *ancien regime*, the Revolution and the Napoleonic period. Topics in the French enlightenment and Jewish emancipation.

Mrs. Hoffman

*NEJS 135a. The Categories of the Spiritual Life in Jewish Neoplatonism

*NEJS 135b. Faith and Reason in Jewish Aristotelianism

NEJS 137. Hebrew Literature: Introduction to Medieval Hebrew Poetry

The Hebrew Golden Age of Spain especially the works of Shmuel Hanagid, Shlomo ibn Gabirol, Moshe ibn Ezra, and Yehuda Halevi.

Prerequisite: Permission of instructor.

Mr. Segal

NEJS 139a. Major Trends in Modern Hebrew Literature

A critical study (in English) of two major streams, the traditional and rebellious, in modern Israeli poetry and prose by means of an analysis of themes, ideas, milieu, and structure with emphasis on parallel motifs in European literature.

Seminar, by arrangement.

Mr. Brandwein

*NEJS 140a. History of the Jews in Antiquity and the Middle Ages

*NEJS 144a. Political Modernization in the Near East

*NEJS 146b. Politics and Political Institutions in the Near East

*NEJS 147a. The Ottoman Empire and the West

*NEJS 149b. Contemporary Social Change in Israel

NEJS 160a. The American Jewish Experience, 1654–1885

A survey of American Jewish history from the earliest settlement to the consolidation by the nineteenth century German Jewish immigrants of their social, economic, and ideological patterns.

Mr. Jick

NEJS 160b. The Emergence of the American Jewish Pattern, 1880 to the Present

The impact of mass immigration from Eastern Europe beginning in the 1880's. The challenge of socialism, Zionism, secular nationalism, and religious reform. The emergence of the institutions, ideologies, life styles, and cultural norms which constitute the American Jewish pattern.

Mr. Jick

* Not to be given in 1970–71.

NEJS 163a. The Sociology of the American Jew

The individual, the in-group, and the majority society; minority-group personality development; the Jewish family; patterns of self-segregation, acculturation, and assimilation; religion in American society and in the life of the individual Jew.

See Sociology 118a.

Mr. Sklare

NEJS 164b. Jewish Communal Structure and Organization

The role of the subcommunity in American society; Jewish communal services in medieval and modern times; contemporary American Jewish communal forms; religion, community relations, overseas aid, social welfare, and relationships with Israel.

See Sociology 118b.

Mr. Sklare

NEJS 166a. Modern Jewish Intellectual History to 1870

Jewish ideologies and movements from the Enlightenment to the rise of political anti-Semitism.

Mr. Silberstein

NEJS 166b. Modern Jewish Intellectual History since 1870

Jewish ideologies and movements from the rise of political anti-Semitism to the present.

Mr. Silberstein

NEJS 168a. The Culture of East European Jewry

A survey of social and ideological trends and an introduction to the literature and folklore of East European Jewry.

Mr. Goldsmith

*NEJS 168b. The Literature of the Holocaust

NEJS 171b. Trends and Values in Yiddish Literature

A study (in English) of the major lines of development from the folk literature of the sixteenth century to the contemporary short story, novel, essay and poem.

See Yiddish 171b.

Mr. Goldsmith

*NEJS 172a. Seminar in Yiddish Literature: Mendele Mokher Seforim, Sholom Aleichem, and Y. L. Peretz

*NEJS 172b. Seminar in Yiddish Literature: The Works of H. Leivick

NEJS 173a. Seminar in Yiddish Literature: American Yiddish Poetry

The leading figures and movements during the period from 1890 to 1940. Rosenfeld, Yehoash, Liessin, Reisen, M. L. Halpern, and Mani Leib.

See Yiddish 173a.

Mr. Goldsmith

NEJS 173b. Seminar in Yiddish Literature: Contemporary Poetry

Among the poets whose work will be studied are Glatstein, Grade, Manger, J. I. Segal, Sutzkever, and Zeitlin.

See Yiddish 173b.

Mr. Goldsmith

*NEJS 188a. Socialism and Zionism

See History of Ideas 188a.

See Graduate School catalog for courses numbered 200 and above.

* Not to be given in 1970-71.



Philosophy

Chairman to be announced; Professors HENRY D. AIKEN, PETER DIAMANDOPOULOS, ALASDAIR MACINTYRE, SIDNEY MORGENBESSER (Visiting), FREDERIC T. SOMMERS, JOHN VAN HEIJENOORT, MORRIS WEITZ; Assistant Professors RICHARD M. BURIAN, ROBERT S. GREENBERG (*Student Adviser*).

Requirements for Concentration

A. Required of all Candidates: Philosophy 1, 11a and 11b, 15a, 17a, 143b, and two semester courses chosen from those numbered 100 and above, except that Philosophy 143b may not satisfy this latter requirement, and that one of those semester courses must be a systematic-analytic course, *e.g.*, metaphysics, theory of knowledge, philosophy of science, philosophy of history, etc.

B. Additional Requirement for candidates for degrees with distinction: Philosophy 99.

C. It is advised, but not required, that prospective concentrators take Philosophy 1 in their freshman or sophomore year.

For courses in Jewish Philosophy see NEJS.

PHILOSOPHY 1. Introduction to Philosophy: Problems of Philosophy

A general course presenting the problems of philosophy, especially in the areas of metaphysics, epistemology, ethics, and social and political philosophy. Problems in other areas, including esthetics and philosophy of religion may also be discussed. Discussion will focus on the treatment these problems have received in the history of philosophy. The texts will include works of selected philosophers of various historical periods from antiquity to the present. Philosophical doctrines will be applied to contemporary problems.

Required of all concentrators.

Staff

PHILOSOPHY 11a. History of Ancient Philosophy

A critical review and discussion of selected texts from the pre-Socratics, Plato, and Aristotle.

Open to all students.

Mr. Diamandopoulos

PHILOSOPHY 11b. History of Modern Philosophy

A critical review and discussion of selected texts from Descartes, Locke, Berkeley, Hume, Leibniz, and Kant.

Prerequisite: Philosophy 11a.

Mr. Greenberg

PHILOSOPHY 13a. Philosophy of Art

An examination of several leading theories of art, beauty and esthetic judgment and a review of recurring problems such as the form of a work of art, communication in art, and meaning in esthetic judgment.

Mr. Aiken

PHILOSOPHY 15a. Logic

Propositional calculus. Quantification theory. Satisfiability and validity. Completeness. Loewenheim-Skolem theorem. Many-sorted logic. Theory of types.

See Linguistics Program and Mathematics 115a.

Mr. van Heijenoort

*PHILOSOPHY 17a. Introduction to Ethics

*PHILOSOPHY 40b. The Conflict of Ideologies in Western Civilization

*PHILOSOPHY 52a. Philosophy of Religion

PHILOSOPHY 98c. Senior Seminar

Readings, reports, and discussions on assigned topics.

Prerequisite: Permission of Department.

Staff

PHILOSOPHY 99. Senior Research

Preparation of honors work under the supervision of the department.

Prerequisite: Permission of Department.

Staff

For Undergraduate and Graduate Students

(For undergraduates—Open only to juniors and seniors who have a minimum of one year of Philosophy or by special permission of the instructor.)

To avoid a proliferation of listings, only those courses offered in a given academic year are described below. A number of current offerings are crosslisted with the History of Ideas offerings.

PHILOSOPHY 105a. Plato

An introduction to Plato's thought through an intensive reading of several major dialogues.

Mr. Sommers

*PHILOSOPHY 105b. Aristotle

*PHILOSOPHY 107b. Medieval Philosophy

PHILOSOPHY 115a. Logic

See Philosophy 15a.

Mr. van Heijenoort

PHILOSOPHY 116b. History of Modern Ethical Theory

A study of major moral philosophers in the modern period with special attention to Hume, Kant, Bentham, Mill, and Bradley.

Mr. Aiken

* Not to be given in 1970-71.

*PHILOSOPHY 117aR. Ethical Theory in the Twentieth Century

PHILOSOPHY 119a. Theory of Knowledge

The problem of knowledge will be discussed from a variety of standpoints: concepts and precepts, comparative logic, the psychology and neurophysiology of cognition, the historical development of conceptual traditions. *Mr. Sommers*

*PHILOSOPHY 121bR. Foundations of Mathematics

See Linguistics Program and Mathematics 125bR.

PHILOSOPHY 124b. Concepts: Their History and Variety

A survey of the major historical theories of concepts and conceptualization with especial emphasis on their relevance to contemporary theories of the nature and role of concepts in human culture. *Mr. Weitz*

*PHILOSOPHY 130aR. Philosophy of Logic

PHILOSOPHY 131b. Legacy of Logical Positivism

An examination of some central tenets of logical positivism; the breakdown of the positivist program; current attempts to grapple with resultant difficulties. Emphasis will be placed on the notions of verification, truth, meaning, and conceptual change. *Mr. Burian*

*PHILOSOPHY 132a. Nineteenth Century Philosophy

PHILOSOPHY 133a. Bertrand Russell and G. E. Moore

An intensive examination of the major philosophical works of Russell and Moore: with especial reference to Russell's logical atomism and Moore's doctrines of sense data. *Mr. Weitz*

*PHILOSOPHY 133b. Contemporary Analytic Philosophy

PHILOSOPHY 134aR. The Continental Existentialists and Their American Counterparts

A consideration of selective topics from the works of Nietzsche, Kierkegaard, Sartre, James, Dewey. *Mr. Aiken*

PHILOSOPHY 135a. Philosophy in Literature

Philosophical problems as reflected in classics of literature, such as the Greek dramatists, Shakespeare, Voltaire, Tolstoy, T. S. Eliot, and Proust. *Mr. Weitz*

PHILOSOPHY 136. Post-Kantian Idealism and its Critics

Hegel's work will be contrasted with that of other German idealists, especially that of Fichte, and with the doctrines of the British idealists, Bradley, Green, and McTaggart. The Marxist existentialist and empiricist criticisms of Hegel will be considered.

Prerequisite: Philosophy 167a desirable but not required. *Mr. MacIntyre*

PHILOSOPHY 137a. Moral Theory and Moral Change

An examination of the relationship of philosophical theories about morality to the moral practice of society and to the historical explanation of moral change. Among the authors to whom special attention will be paid are Kant and Kierkegaard.

See History of Ideas 185.

Mr. MacIntyre

PHILOSOPHY 138b. Ideology and the Explanation of Belief

A study of the concept of ideology centering on the transformation of Marxism from a critique of European society in the 1840's, into the ideology of the established order of Soviet society, with an emphasis upon the philosophical and methodological problems that arise in the course of explaining the vicissitudes of a belief.

See History of Ideas 186b.

Mr. MacIntyre

*PHILOSOPHY 140b. Philosophy of Science

PHILOSOPHY 141b. Three Classical Philosophical Problems

A close analysis of a famous tradition of philosophical problems: the existence of God, the freedom of the will, and the question of the existence of life after death.

To be announced

PHILOSOPHY 143aR. Continental Rationalism

Intensive study of selected texts from Descartes, Spinoza, and Leibniz.

Mr. Diamandopoulos

*PHILOSOPHY 143b. British Empiricism

PHILOSOPHY 144b. Marxism and Pragmatism

An analytical and historical exploration of leading Marxist theses, including the early manuscripts of the 1840's. These theses include the treatment of alienation, dialectical materialism, and ideology in light of writings of pragmatists and current materialists.

Mr. Morgenbesser

PHILOSOPHY 145b. Human Action

Selected topics of intention, purpose, will, reason, and courses in action versus movement in human experience.

Mr. Weitz

PHILOSOPHY 147a. American Pragmatism and Education

A study of the main American pragmatists: Peirce, James, and Dewey. Special attention given to their philosophies of education.

See American Civilization 182a.

Mr. Aiken

PHILOSOPHY 148b. Philosophy of Social Sciences

An analysis of leading concepts and principles of the social sciences, especially economics, psychology, and sociology, and a comparison of the social and physical sciences.

Mr. Morgenbesser

* Not to be given in 1970-71.

*PHILOSOPHY 150a. Wittgenstein

PHILOSOPHY 151a. Social and Political Philosophy: Individuals, Groups and Communities

An analysis of the fundamental concepts of groups and individuals in social and political theory and a discussion of problems of relations of groups and individuals. Among problems and concepts to be discussed are responsibilities of individuals to groups, the nature of collectivity, the concept of community, and the concept of an individual. Reference will also be made to the special historical communities, "experimental communities," such as the Paris commune, several American utopian communities of the nineteenth century, and the Israeli kibbutzim.

To be announced

*PHILOSOPHY 152b. Philosophy of History

PHILOSOPHY 153a. Empiricism versus Rationalism

A re-examination of several issues which are traditionally considered the source of the rationalist empiricist controversy. Special attention will be given to the problem of innate ideas and the origins of knowledge.

To be announced

PHILOSOPHY 154. Tragedy

See Theater Arts 151.

Mr. Matthews

PHILOSOPHY 156bR. Philosophy of Mind

An examination of selected current topics, including the concept of willing, intentionality, and the mind-body problem.

Mr. Burian

*PHILOSOPHY 157aR. Philosophy of Language

PHILOSOPHY 158a. Experience, Substance, and Identity

An analytical investigation of certain problems in the area of metaphysics. Reference will be made to traditional as well as contemporary philosophers. Discussion will focus on the role of experience in the resolutions of problems.

Mr. Greenberg

PHILOSOPHY 160b. Linguistic Philosophy

Examination of critical linguistic methods in analytic philosophy.

See Linguistics Program.

Mr. Sommers

*PHILOSOPHY 167a. Kant

PHILOSOPHY 168. Post-Kantian Idealism and its Critics

See History of Ideas 168.

Mr. MacIntyre

PHILOSOPHY 171a. Frege

An intensive study of major themes in Frege's philosophy.

Philosophy 15a or 115a not prerequisite but would be of great value in taking this course.

Mr. van Heijenoort

PHILOSOPHY 178. Body, Mind and Nature, 1830–1880

See History of Ideas 178a.

Mr. Smith

* Not to be given in 1970–71.

Physics

Professor STANLEY DESER, *Chairman*; Professors STEPHAN BERKO, JACK S. GOLDSTEIN (*Director of Astrophysics Institute*), EUGENE P. GROSS, EDGAR LIPWORTH, HOWARD J. SCHNITZER, SILVAN S. SCHWEBER; Associate Professors MAX CHRÉTIEN, MARCUS T. GRISARU, PETER HELLER, HUGH N. PENDLETON III (*Undergraduate Adviser*); Assistant Professors DANIEL J. AMIT, H. DANIEL COHEN, JACQUES COHEN, IRA H. GILBERT, CHRISTOPH HOHENEMSER, LAWRENCE E. KIRSCH, ROBERT V. LANGE, ALLEN P. MILLS, JR., ROBERT P. PERRIN, ALAN T. RAMSEY, PETER E. SCHMIDT, ROBERT F. STEIN; Instructor BRIAN W. MURRAY.

Requirements for Concentration

A. The minimum requirement for concentration in Physics is 11 semester courses in physics and 2 semester courses in mathematics. (Neither Mathematics 1 nor Physics 24a fulfills the concentration requirement.) Of the 11 semester courses in physics, at least 3 must be semester courses in laboratory work.

B. Students not intending to pursue graduate study in physics may be permitted to substitute advanced courses in other fields to meet physics concentration requirements, subject to the approval of the department.

C. Students who have attained a grade of 3, 4, or 5 on the Advanced Placement Examination may obtain credit for Physics 10.

D. Additional requirement for candidates for degrees with distinction: Physics 99 or two graduate semester courses (with honor grades).

E. Students may be admitted to a special four-year M.A. program upon recommendation of the department and the Graduate School.

PHYSICAL SCIENCE 1a. Introduction to Classical Physics

A survey of the concepts and laws of classical mechanics, electromagnetism, and thermodynamics.

Mr. Kirsch

PHYSICAL SCIENCE 1b. Introduction to Modern Physics

A survey of the concepts and laws of quantum mechanics and nuclear physics. The course stresses the practical application of physical theories.

Mr. H. D. Cohen

PHYSICAL SCIENCE 2a. Introduction to Computer Sciences

The course will discuss the logical structure of modern computers; their applications and expected impact on society. Among the topics to be treated: binary arithmetic, Boolean algebra, computer programming, computer languages, the application of computers to education and research. Instruction in the elements of FORTRAN programming; optional exercises on the Brandeis computers.

Messrs. Chrétien and J. Cohen

PHYSICAL SCIENCE 2b. Elementary Astronomy

The solar system, our local galaxy, and the metagalaxy will be examined using the information obtained in observational astronomy as structured by astrophysical theory. The evolution of stars, of the chemical elements, and of the observable universe will be similarly inferred.

Messrs. Gilbert and Goldstein

PHYSICS 10. Elementary Physics

The phenomena and concepts of physics and their mathematical description.

The course requires proficiency in elementary mathematics including trigonometry or Mathematics 10 which may be taken concurrently. Physics 18c is optional for Physics 10 students. However, a physics course *with* laboratory is a prerequisite for medical and dental schools, and students intending to pursue such a career should register for Physics 18c.

Mr. Schmidt

PHYSICS 11. Basic Physics I

The course covers the basic laws of classical physics and their application to macroscopic and microscopic systems; Newtonian with relativistic mechanics; thermodynamics and statistical mechanics and elementary electromagnetism presented from a modern point of view.

Co-requisite: Mathematics 10, 11, 12 or equivalent.

The course is recommended for all eligible students who plan to concentrate in science. Physics concentrators should take it in their freshman year. Students should check their departmental requirement with respect to the laboratory course, Physics 19c.

Three lectures and one recitation per week.

Mr. Pendleton

PHYSICS 18c. Introductory Laboratory

Laboratory course consisting of basic physics experiments designed to supplement Physics 10. A student should consult his departmental adviser to ascertain whether this course is required in his study program.

Three laboratory hours per week. *4 credits.*

Laboratory fee: \$10.

Mr. Chrétien

PHYSICS 19c. Physics Laboratory I

Laboratory course consisting of basic physics experiments designed to supplement Physics 11. A student should consult his departmental adviser to ascertain whether this course is required in his study program.

Three laboratory hours per week. *4 credits.*

Laboratory fee: \$10.

Messrs. H. D. Cohen and Lipworth

PHYSICS 20a,b. Basic Physics II

A continuation of Physics 11. The emphasis will be on the description and mathematical analysis of wave phenomena. Detailed treatment of electromagnetism, optics, sound, atomic physics and elements of wave mechanics.

Two lectures and two recitations per week.

Prerequisite: Physics 11 or Physics 10 with permission of instructor.

Mr. Mills

PHYSICS 25b. Astrophysics

Physics of the interstellar medium. Stellar structure and evolution. Nucleosynthesis. Stellar atmospheres and astronomical observations.

Mr. Stein

PHYSICS 29a. Physics Laboratory II

The fundamentals of circuit theory, electronics, and electrical measurements will be studied intensively.

Six laboratory hours per week.

Mr. Ramsey

PHYSICS 29b. Physics Laboratory II

Signal processing techniques. Application to detection of nuclear magnetic resonance. Mathematical description of random noise: related experiments. Experiments on wave phenomena, coherence and physical optics.

Six laboratory hours per week.

Mr. Heller

PHYSICS 30a,b. Atomic and Nuclear Physics

A seminar course dealing with the basic experiments, concepts, and mathematical analysis of atomic physics, spectroscopy, and nuclear physics. Includes an introduction to quantum mechanics.

Prerequisite: Physics, 20a,b.

Mr. Lipworth

PHYSICS 31a,b. Methods of Mathematical Physics

Use of mathematical methods in the solution of typical problems of physics. The methods to be used: linear algebra, vector calculus, Fourier analysis, ordinary and partial differential equations, complex variables.

Messrs. Pendleton and Schweber

PHYSICS 37a. Concepts of Physics*PHYSICS 39a,b. Physics Laboratory III**

A laboratory course involving the performance of representative experiments in atomic, molecular, and nuclear physics—some involving independent research by the student. The course will undertake a detailed analysis of other fundamental experiments not performed. Designed to be taken concurrently with Physics 30.

Prerequisite: Physics 29a,b.

Mr. Murray

PHYSICS 40a,b. Properties of Matter I

A seminar course in the phenomenology and microscopic description of the bulk properties of matter stressing the development of a working knowledge of thermodynamics, kinetic theory, statistical mechanics, and wave mechanics. Applications will be to the various states of matter.

Prerequisite: Physics 20a,b.

Mr. Amit

PHYSICS 49a,b. Properties of Matter II*PHYSICS 50a,b. Theoretical Physics**

Lagrangian and Hamiltonian methods applied to the dynamics of particles and fields. Normal modes. Lattice dynamics. Solution to the boundary value and scattering problems arising in electromagnetism, sound, wave mechanics and fluid dynamics. Introduction to non-linear phenomena.

The course will aim at developing familiarity with the mathematical tools useful in physics.

Prerequisite: Approval of instructor.

Messrs. Grisaru and Gross

* Not to be given in 1970-71.

PHYSICS 97a,b. Tutorial in Physics

Staff

PHYSICS 98a,b. Reading in Physics

Open to exceptional students who wish to study an area of physics not covered in the standard curriculum.

Staff

PHYSICS 99. Senior Research

Research assignments and preparation of a report under the direction of an instructor.

Staff

For Undergraduate and Graduate Students

Courses in the 100 series are open to qualified undergraduate students, although they are primarily first year graduate courses.

PHYSICS 100a. Theoretical Mechanics

Mechanics of point systems. Lagrangian and Hamiltonian methods. Small vibrations. Transformation theory. Integral invariants. Kinematics and dynamics of rigid bodies. Perturbation theory. Relativistic mechanics.

Mr. Gilbert

PHYSICS 101a,b. Electromagnetic Theory

Electrostatics, magnetostatics, boundary value problems. Maxwell's equations. Quasi-stationary phenomena. Radiation.

Mr. Perrin

PHYSICS 102a,b. Quantum Mechanics

Representations, pictures, operator methods. Schrödinger equation and applications. Spin. Addition of angular momenta; helium spectrum. Pauli principle. Atomic and molecular structure. Elementary scattering theory; atomic and nuclear scattering.

Mr. Schweber

PHYSICS 103a. Statistical Physics

Review of thermodynamics; statistical postulates; microcanonical ensemble; Maxwell-Boltzman distribution. Thermodynamic laws; canonical distribution; grand canonical ensemble; specific heats and magnetic susceptibilities in non-interacting systems; Bose systems; Brownian motion; Einstein theory; Perrin experiments; Nyquist-Johnson noise; fluctuation-compliance theorem; correlation functions. Transport theory. Mean field theories of cooperative phenomena.

Mr. Heller

PHYSICS 103b. Atomic and Nuclear Structure

A survey course of the systematics of elementary atomic and nuclear structure. The intent of the course is to supply a background for such courses as astrophysics and atomic physics. Original papers will be used to supplement the lectures. The approach is more experimental than theoretical.

Prerequisite: Physics 102a or the equivalent.

Mr. Ramsey

*PHYSICS 104a,b. Solid State Physics

PHYSICS 109a,b. Advanced Laboratory

Mr. Berko

PHYSICS 110a,b. Mathematical Physics

Linear vector spaces: matrices, operators, Hilbert spaces. Orthogonal functions. Probability theory.

Mr. Goldstein

See Graduate School catalog for courses numbered 200 and above.

Politics

Professor ROY C. MACRIDIS, *Chairman*; Professors WALTER V. LAQUEUR, RUTH SCHACHTER MORGENTHAU, JOHN P. ROCHE, I. MILTON SACKS, KENNETH N. WALTZ; Associate Professors DONALD HINDLEY (*Student Adviser*), GEORGE A. KELLY, ERIC A. NORDLINGER, PETER WOLL; Assistant Professors ROBERT J. ART, MARTIN A. LEVIN, PETER NATCHEZ, O. RALPH RAYMOND, II, LOIS WASSERSPRING; Lecturers WILLIAM SCHNEIDER (*Visiting*), ERNEST STOCK.

Requirements for Concentration

A. Required of all Candidates: Politics 1a or 1aR.

B. Concentrators are required to complete at least ten semester courses in Politics. Politics 1a/1aR will count towards this requirement. Politics 98 (Independent Study) will count towards this requirement except for students concurrently taking Politics 99 (Honors). At least one course must be taken from each of the following fields: American Government, Comparative Government, International Relations and Political Theory.

C. Candidates for Departmental Honors must complete Politics 99.

D. Juniors who plan to become candidates for Departmental Honors and who have a 3.0 grade average in the Department may enroll in a special 95b seminar.

E. With the consent of the Departmental Director for Undergraduate Studies students may receive departmental course credits for courses taken in related departments.

F. With the permission of the Director for Undergraduate Studies, upperclassmen may enroll in graduate courses.

Introductory Courses

POLITICS 1a. The Western Political Tradition

Historical in orientation, the course focuses on such problems as justice, power, natural law. The readings, lectures, and discussions bring the political tradition to bear on the condition of twentieth-century man with particular reference to the central issue of reconciling individual liberty and social control.

Open to freshmen.

Mr. Roche and Staff

POLITICS 1aR. The Western Political Tradition

Through the examination of classical political texts (Plato, Aristotle, Hobbes, Rousseau, etc.) as well as some more modern writings (Weber, Mosca, Freud), the course focuses topically on central problems of political discourse such as power and authority, human nature, freedom, obligation, justice, and the organization of the state. Both historical and analytical approaches are used.

Open to freshmen.

Mr. Kelly and Staff

POLITICS 11b. Introduction to European Government

A comparative study of government in the advanced western states with emphasis on Great Britain, France, Germany, and the USSR.

Open to freshmen.

Mr. Macridis and Staff

POLITICS 12b. The Dynamics of Modern Government*POLITICS 13b. Introduction to the Politics of Non-Western States**

A comparative study of political development in the countries of Africa, Asia, and Latin America.

Open to freshmen.

Mr. Hindley

POLITICS 14b. Introduction to American Government

An analysis of American political institutions: Congress, Presidency, Supreme Court, bureaucracy, political parties, pressure groups, and problems of governmental decision-making will be examined in relation to specific areas of public policy.

Open to freshmen.

Mr. Natchez

POLITICS 15a. Introduction to International Politics

An examination of such explanations of international politics as those developed by realists, liberals, pacifists, socialists and behavioralists. Diplomacy, peace-making, imperialism, militarism and war in the heyday of the European state system (1870-1914).

Open to freshmen.

Section I: *Mr. Art*

Section 2: *Mr. Waltz*

Courses Specifically for Juniors and Seniors**POLITICS 95b. Junior Seminar**

For juniors contemplating taking honors. Topic to be announced.

Staff

POLITICS 97a,b. Senior Seminars

Topic to be announced.

Staff

POLITICS 98a,b,c. Independent Study

Staff

POLITICS 99. Senior Research

Students doing Honors will consult with the Director of the Undergraduate Studies before being assigned to a professor for the supervision of their thesis work.

Staff

* Not to be given in 1970-71.

American Government

[See POLITICS 14b. Introduction to American Government]

*POLITICS 101a. Parties, Pressure Groups, and Public Opinion

POLITICS 104a. The American Voter

This course will consider both historical and behavioral theories to explain individual voting decisions and to interpret the meaning of elections in American politics. Topics: the modernization of American political culture, electoral strategies, voter rationality, extremism and radical politics, and the consequences of electoral outcomes.

Mr. Natchez

*POLITICS 107a. The Politics of Public Policy

*POLITICS 113a. The American Presidency

POLITICS 115a. History of American Constitutional Law and Theory

See History 166a.

Mr. Roche

POLITICS 115b. History of American Constitutional Law and Theory

See History 166b.

Mr. Roche

*POLITICS 116b. Civil Liberties in America

See History 155b.

*POLITICS 117b. American Political Thought

POLITICS 118b. Ethnic Groups in the United States

The course will deal with the study and identification of major ethnic groups in the United States of America, their political cultures, and the manner in which they participate in the political process.

Miss Wasserspring

POLITICS 119b. Communism in the United States

This course investigates native and foreign ideological and organizational inputs in the Communist Party of the USA, the Party's relationship to domestic issues, its links with the Communist International, and the source of its appeal. At pertinent points Soviet and Comintern political issues, influencing the conduct of the CPUSA, will also be discussed.

Mr. Raymond

POLITICS 120a. Politics of Urban Areas

An analysis of the management of conflict in urban areas and its institutional (the distribution of authority and influence), demographic, and cultural setting. Special emphasis on the relationship between patterns of conflict management of urban governments and the public services provided by these governments, such as criminal justice, education, welfare and poverty programs.

Mr. Levin

POLITICS 121a. The Politics of Poverty, Class, and Race in Urban Areas

An examination of the interrelated problems of class, race, poverty, and social change in urban areas. Special emphasis on the public policies directed toward these problems.

Mr. Levin

* Not to be given in 1970-71.

POLITICS 123b. The Politics of Urban Criminal Justice

Analysis of the behavior of police, prosecutors, and trial court judges in urban areas. Special emphasis on the relationships between these officials and the political systems of the urban areas. Evaluation of these officials' behavior and especially its effect on their clients. *Mr. Levin*

[See also Politics 168a and 168b, American Foreign Policy.]

Comparative Politics

[See POLITICS 11b. Introduction to European Government
 POLITICS 12b. The Dynamics of Modern Government
 POLITICS 13b. Introduction to the Politics of non-Western States]

POLITICS H125a. Israeli Government and Politics (Hiatt Institute)

The emerging political institutions of a rapidly developing society. Lectures and field work conducted in Israel under the Hiatt Institute. 4 credits.

Mr. Arian

POLITICS 126b. Political Change in the Near East*POLITICS 130a. The Political and Social Institutions of the Soviet Union**

Beginning with a brief historical study of the Bolshevik revolution, this course will analyze the ideological and institutional sources of the Soviet state and party structures. Particular attention will be devoted to institutional development and its political, economic, and social causes and consequences. *Mr. Raymond*

POLITICS 132b. The Soviet Union in World Affairs

This course will examine Soviet foreign policy in the light of ideological and state considerations. The decay of world communism as a single power center, the phenomenon of "polycentrism," and the changing pattern of communist state relations with the West and with the underdeveloped world will be discussed.

Mr. Raymond

POLITICS 140a. The Politics of Africa**POLITICS 140b. Seminar in Contemporary African Politics****POLITICS 144a. The Politics of Northern Latin America**

This course focuses on the elements of stability and instability in the region. Specific examination is made of the Mexican and Cuban revolutions, the aborted Guatemalan revolution of 1944–1954, and the "maverick" constitutional democracy of Costa Rica. *Miss Wasserspring*

POLITICS 144b. The Politics of Southern Latin America

The emphasis of this course is on the political development of Brazil and Argentina and on the origins, course and subsequent failure of the Bolivian revolution of 1952. *Mr. Hindley*

***POLITICS 148a. Government and Politics: China and Japan**

° Not to be given in 1970–71.

POLITICS 150a. Government and Politics: Southeast Asia

An introduction to major aspects of the political development of Southeast Asia in the modern period: the impact of Western colonialism, the nationalist struggles, the post-independence attempts to establish viable political systems, communism and intervention from outside the region. Specific attention is given to Vietnam, Thailand, Malaysia and Indonesia.

Mr. Hindley

POLITICS 154b. Politics of European Integration*POLITICS 156b. European Political Systems**

This course will deal in depth with parties, ideologies, and governmental institutions of European countries, with particular emphasis on Britain, France, and Germany.

Mr. Macridis

POLITICS 157a. Working Class Politics in Europe

The development of working class consciousness and political participation in Western Europe. Topics include: the growth of workers' parties and trade unions; the workers' involvement in the French and Russian Revolutions, and the Spanish Civil War; the elites' strategies for dealing with the workers' political demands; syndicalism and the general strike; the attraction of communist, socialist, and fascist parties; and the political consequences of social mobility and the new affluence.

Mr. Nordlinger

° Not to be given in 1970-71.



*POLITICS 157b. British Politics

*POLITICS 158b. Political and Social Thought in Contemporary Germany (1918–1970)

POLITICS 161b. Colonialism and Imperialism

The course will deal with the political and some of the economic characteristics of colonialism and imperialism and some of its most pervasive manifestations today.
Miss Wasserspring

POLITICS 163b. The Study of Revolution

An historical examination of different types of revolution, their causes, the ideologies of revolutionary movements, strategies for fighting internal wars, and the relative desirability of bringing about social and economic change in a violent or reformist manner.
Mr. Nordlinger

POLITICS 164a. Comparative Foreign Policy

The course will deal with a discussion of the underlying factors shaping foreign policy and a detailed discussion of the foreign policy of some of the major powers including the United States and the Soviet Union.
Mr. Macridis

International Politics

[See POLITICS 15a. Introduction to International Politics]

POLITICS 168a. American Foreign Policy

An historical analysis of these American foreign policy strategies: isolationism, imperialism, collective security, balance of power and containment. The effects of foreign pressures and domestic politics on these strategies will be considered. The course will focus on the period 1890 to 1950.
Mr. Art

POLITICS 168b. American Foreign Policy

A post-World War II analysis of American foreign policy. The course will focus on three areas: how foreign policy decisions have been made, how they have been implemented, and what effects they have had. Substantive areas, such as containment in Europe and Asia, nuclear deterrent, alliance management, and foreign aid will be examined to illustrate the dilemmas confronting a superpower.
Mr. Art

POLITICS 169b. The Military-Industrial Complex

Relevant material from microeconomic theory, bureaucratic theory, the sociology of the military profession, deterrent theory, and political science will be used to generate hypotheses about the existence, causes, nature, and effects of this phenomenon. These hypotheses in turn will be tested against empirical data. *Mr. Art*

*POLITICS 170a. International Organization

POLITICS 172b. Contemporary International Politics

A discussion of such factors and problems as the origins of the Cold War, Soviet and American foreign policy, nuclear strategy and internal war as they influence the pattern of international politics.
Mr. Nordlinger

* Not to be given in 1970–71.

POLITICS 174a. Problems of National Security

An examination of political, military and economic strategies for securing national interests and their application in some of the crises faced by the U.S. since 1945. *Mr. Waltz*

POLITICS 176a. Studies in World Politics

An analysis of the dynamics of global politics in the contemporary world, with special emphasis on American policy toward Europe, Asia, and the Middle East, along with a critical survey of the principal theories of political behavior in war and peace. Some attention will be paid to the relation between foreign policy and the emerging life styles around the world. *Mr. Lerner*

*POLITICS 178b. International Politics in the Pacific Area

[See also Politics 154b, Politics of European Integration; 161b, Colonialism and Imperialism; and 164a, Comparative Foreign Policy.]

Political Theory and Methods

[See Politics 1a, 1aR. The Western Political Tradition.]

*POLITICS 182a. Political Thought from Plato to Rousseau

*POLITICS 186b. Political Philosophy of the Enlightenment

*POLITICS 187a. Liberalism as Political Force and Idea

POLITICS 190a. Socialism and Revolution

An analysis of the relationship between socialist and revolutionary thought beginning with the liberal revolutionary tradition of the French Revolution and continuing through the various branches of Marxism. *Mr. Raymond*

POLITICS 191b. Contemporary Political Theory

Aspects of Western political theory and its cultural milieu, from Nietzsche to the present. Including Sorel, the neo-Machiavellians, Weber, Bolshevism, Fascism, democratic socialism, existentialism, neo-Marxism, neo-Catholicism, neo-positivism, Freudianism, and linguistic analysis. *Mr. Kelly*

POLITICS 192b. Empirical Political Science

The course will consider the usefulness of various theoretical models (systems theory, functionalism, data analysis paradigms) insofar as they increase our capacity to explain political data. It will inquire into the construction and testing of causal theories. Emphasis will be put upon the use of qualitative and quantitative evidence through an intensive, critical analysis of selected issues: political stratification and mobility, ideology, violence, reform, consensus and legitimacy and others. *Mr. Schneider*

*POLITICS 195a. Research Methods and Techniques

[See also Politics 117b. American Political Thought.]

* Not to be given in 1970-71.

Psychology

Professor RICARDO B. MORANT, *Chairman*; Professors EUGENIA HANFMANN, BRENDAN A. MAHER, HARRY RAND, MARIANNE L. SIMMEL; Associate Professors MAURICE HERSHENSON, JAMES B. KLEE, JEROME WODINSKY; Assistant Professors JOHN R. FREDERIKSEN, RICHARD KATZ, JAMES R. LACKNER, JOSEPH A. LITVEN, HARVEY S. LONDON, LESLIE A. MCARTHUR, SIDNEY I. STECHER (*Student Adviser*), ARTHUR WINGFIELD; Lecturers DONALD B. GIDDON, DANIEL PERSCHONOK, INA SAMUELS, JOHN W. SENDERS, MURRAY SIDMAN.

Requirements for Concentration

A. All concentrators in Psychology will take eight semesters (courses) in the Psychology Department. Of these eight courses (1) all concentrators will take Psychology 1a or 1aR, 2a or 2aR first or concurrent with other courses in Psychology; (2) all concentrators will take two courses from the following list: Psychology 118a, 119b, 120a or 120aR, 140a, 159a, and four additional semester courses in psychology.

B. Candidates for degrees with distinction must take Psychology 99 in addition to the foregoing.

C. Students who plan to do graduate work in Psychology will take Psychology 11a or 11aR and 120a or 120aR (preferably before the end of the junior year) and Psychology 50b.

Many courses numbered 130 or higher are seminars with limited enrollment, and require the consent of the instructor. Junior or senior standing will usually be required. In cases where more than the maximum number of students wish to enroll in a course, criteria for selection may include the number of seminars taken previously, to provide equal opportunity for all concentrators.

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Psychology and Psycholinguistics

An alternative concentration in *Psychology and Psycholinguistics* will consist of eleven courses drawn from Psychology and from the Linguistics Program.

The Psychology requirement will be satisfied by Psychology 1a or 1aR, 2a or 2aR, 11a or 11aR, 120a or 120aR, 124b, 143b, and 99. It is suggested that at least two of the following also be taken; Psychology 15a, 50a, 118b, 119b, 131b, 140a, 144b or 159a.

The Linguistics requirement will be satisfied by either English 191a or 191b, plus any three of the following; English 196a, 196b, 193a or 197a.

Admission and structuring of this alternative concentration is subject to the approval of the Psycholinguistics and the Linguistics Program Coordinators (Messrs. Wingfield and Keyser respectively).

Connected with the Department of Psychology is a Nursery School to provide students an opportunity for observing children.

Primarily for Undergraduates

PSYCHOLOGY 1a. Introduction to Psychology: Personality

An introduction to the study of development and adjustment dealing with intelligence, emotion, motivation, and personality structure. Experimental, comparative, and clinical approaches are illustrated.

Mr. Litven

PSYCHOLOGY 1aR. Introduction to Psychology: Personality

Mrs. McArthur

PSYCHOLOGY 2a. Introduction to Psychology: Cognitive Processes

Problems in the study of perception, learning, language, and thought are introduced and discussed as directive and integrative processes. Experimental, comparative, and clinical approaches are illustrated.

Mr. Wingfield

PSYCHOLOGY 2aR. Introduction to Psychology: Cognitive Processes

Mr. Lackner

PSYCHOLOGY 11a. Statistics and Quantitative Methods

This course will deal with the fundamentals of descriptive and inferential statistics with particular emphasis on techniques useful in the behavioral sciences but not limited to those. The students will be introduced to a variety of modern quantitative techniques as well as to the use of digital computers and calculating machines. There are no mathematical prerequisites for the course although some prior exposure to elementary algebra would be desirable.

Four credit hours. Lectures and laboratory.

Section 1: *Mr. Frederiksen*

Section 2: *Mr. Senders*

PSYCHOLOGY 11aR. Statistics and Quantitative Methods

Section 1: *Mr. Stecher*

Section 2: *Mr. Senders*

PSYCHOLOGY 12b. Experimental Social Psychology

A general survey of the field including the following: historical introduction, group dynamics, attitude research, experimental study of social problems, and the application of social-psychological knowledge to the issues of the city and of the environment.

No prerequisites.

Mr. London

PSYCHOLOGY 15b. Child Development

Perceptual and cognitive development focused around the work of Piaget, socialization and the development of personality, including behavioral and psychoanalytic approaches.

Prerequisite: Psychology 1a or 2b or permission of the instructor. Enrollment will be limited.

Mr. Litven

PSYCHOLOGY 18b. Motivation

A survey of contemporary theory and research in human motivation. Relevant findings in animal psychology will also be studied, where pertinent.

Prerequisite: Psychology 1a or permission of instructor.

Mrs. McArthur

PSYCHOLOGY 30a. Educational Psychology

The central issue will be creating an education. Consideration of alternative goals and models of education. Emphasis on experiential learning and self-education.

Prerequisite: Psychology 1a and 2a.

Mr. Katz

PSYCHOLOGY 30aR. Educational Psychology**PSYCHOLOGY 35b. Modern Technology and Behavior****PSYCHOLOGY 50a. Introduction to Psychological Theory**

A survey of theories of mind including Associationism, Behaviorism, Gestalt, Functionalism, Structuralism, and their modern derivatives.

Prerequisite: 12 credits in Psychology. Enrollment limited to 40.

This course will ordinarily be taken in the junior or senior year.

Mr. Hershenson

PSYCHOLOGY 55b. Humanistic Psychology

Examination of issues in human potential. Selected techniques for actualizing such potential. Influence of the socio-cultural environment. Emphasis on experiential learning.

Prerequisite: Psychology 1a and 2a or permission of instructor.

Mr. Katz

PSYCHOLOGY 60a. The Psychology of Women

A consideration of biological and social psychological explanations of female psychological development with attention to documented behavioral sex differences in personality, intellectual functioning, and cognitive style.

Prerequisite: Psychology 1a. Enrollment limited to 40.

Mrs. McArthur

PSYCHOLOGY 96a. Field Work in Child Psychology

In addition to class meetings, each student will spend one morning a week (3 hours) observing and participating in the nursery school.

Prerequisite: Psychology 1a, 15a, and permission of instructor. Enrollment limited.

Miss Simmel

PSYCHOLOGY 96aR. Field Work in Child Psychology

Miss Simmel

PSYCHOLOGY 98a,b, and c. Readings in Psychological Literature

Readings and reports under the direction of a faculty supervisor. Open to a small number of juniors and seniors with permission of Mr. Stecher.

Staff

PSYCHOLOGY 99. Senior Research

Senior candidates for a degree with distinction in psychology may enroll in Psychology 99 with permission of Mr. Stecher.

Staff

For Undergraduate and Graduate Students

PSYCHOLOGY 115a. Experiential Approaches to Personal Growth

Examination, through the functioning of a group, of issues in personal and social growth.

Prerequisite: Permission of instructor. Enrollment limited to 15.

Mr. Katz

* Not to be given in 1970-71.

PSYCHOLOGY 118a. Physiological Psychology

Those aspects of physiology most relevant to psychological investigation: the anatomy and physiology of receptor and effector organs, the neuron and synapse, sensory and motor neural pathways, the integrative activity of the central nervous system, the autonomic system and the action of hormonal factors.

Prerequisite: Psychology 2a or permission of instructor.

Mr. Stecher

PSYCHOLOGY 119b. Comparative Psychology

Comparison of the behavior of various species, including man, in an evolutionary perspective.

Prerequisite: Psychology 2a or permission of the instructor.

Miss Samuels

PSYCHOLOGY 120a. Experimental Psychology

Individual or group research carried out under supervision. Techniques of experimentation, experimental design. 6 credits.

Prerequisite: Psychology 1a and 2a.

Section 1: Research in Cognitive Processes

Mr. Wingfield

Section 2: Research in Perceptual Processes (Enrollment limited to 12 juniors and seniors)

Mr. Morant

PSYCHOLOGY 120aR. Experimental Psychology

Section 1 only.

Mr. Wingfield

PSYCHOLOGY 121a. Computers in the Behavioral Sciences

The role of computers in the behavioral sciences has increased rapidly in recent years. The course will cover application of computers in data analysis, simulation, control of experiments, and computer-aided instruction.

Lecture and laboratory.

Mr. Senders

PSYCHOLOGY 122b. Advanced Experimental Psychology

Information processing approach to perception, attention, and memory. Perceptual development.

Prerequisite: Permission of instructor. Enrollment limited to 10.

Mr. Hershenson



*PSYCHOLOGY 123b. Non-Verbal Experience and Communication

*PSYCHOLOGY 124b. Human Memory

PSYCHOLOGY 125a. Developmental Psycholinguistics

The study of recent advances in psycholinguistics and their relation to modern structural linguistics. Emphasis will be placed on problems in language acquisition and early cognitive development.

Prerequisites: Psychology 1a and 2a.

Mr. Lackner

PSYCHOLOGY 126a. Methods in Personality and Social Psychology

A study of the design and execution of personality and social psychology research. Practical experience carrying out an independent research project either individually or in small groups.

Prerequisites: Psychology 1a or permission of instructor. Enrollment limited to 15.

Mrs. McArthur

PSYCHOLOGY 127b. Temporal Patterning of Behavior

Seminar on problems of serial patterning in the perception and production of speech. Discussion of problems in the integration and execution of complex motor patterns.

Prerequisite: Psychology 1a. Enrollment limited to 15.

Mr. Lackner

PSYCHOLOGY 130b. Psychology of Problem Solving

A survey of theory and experiments on how human beings solve problems, including the Wurzburg School, Bartlett, Gestalt, Bruner, Hovland, computer simulation and information processing approaches.

Prerequisite: Psychology 2. Enrollment limited to 30.

Mr. Klee

*PSYCHOLOGY 131b. Psychology of Symbolic Processes

PSYCHOLOGY 132b. Psychology of Emotions

A consideration of the value dimension of the individual's dynamic relation to the world about him in both its positive and disruptive aspects.

Enrollment limited to juniors, seniors, and graduate students.

Mr. Klee

*PSYCHOLOGY 133a. Choice, Will and the Ego

PSYCHOLOGY 134a. Abnormal Psychology

A general introduction to psychopathology. Various theoretical models will be discussed. The techniques and findings of research, both clinical and experimental, will be emphasized.

Prerequisite: Psychology 1a and 2a.

Mr. Litven

PSYCHOLOGY 134aR. Abnormal Psychology

Mr. Maher

PSYCHOLOGY 135b. Psychology of Social Change

An investigation into the dynamics of social conflict and social change. Of particular focus will be the effects of social change on human development.

Prerequisite: Psychology 1a. Enrollment limited to 15.

Mr. Litven

PSYCHOLOGY 137a. Personality

A consideration of classical personality theory and contemporary personality research. Theories to be studied include psychoanalysis and learning theory. Research to be considered includes that on authoritarianism, birth order, psychopathy, obesity, and Machiavellianism.

Prerequisite: Psychology 1a and 2a or permission of instructor. *Mr. London*

PSYCHOLOGY 137aR. Personality*PSYCHOLOGY 140b. Learning and Behavior**

The concept of learning will be examined critically on the basis of infrahuman and human studies. Techniques for generating and maintaining learned behavior will receive detailed attention, with emphasis on their relevance to mental retardation, mental illness, delinquency, and education.

Enrollment limited to 15.

Mr. Sidman

PSYCHOLOGY 141a. Biological Bases of Motivation

Topics to be treated include hunger, thirst, migration, sexual behavior. Evidence from biology, neurophysiology, and endocrinology will be evaluated.

Enrollment limited to 15.

Miss Samuels

PSYCHOLOGY 142a. Psychosomatics

The interrelationships of psychological, social, and cultural factors in physical disease. Topics include psychophysiological mechanisms in disease, physiological correlates of mental disease, and "somato-psychic problems."

Mr. Giddon

PSYCHOLOGY 143b. Cognitive Processes

Cognitive factors in perception, attention, memory and language. Experimental investigations will be emphasized.

Prerequisite: Psychology 2a or permission of instructor. Enrollment limited to 15.

Mr. Frederiksen

PSYCHOLOGY 144b. The Psychology of Language

Language development; names, concepts, and symbols; expressive language; metaphor; grammar and syntax; problems of translation; pathology of language.

Enrollment limited to 15.

Miss Simmel

PSYCHOLOGY 145a. Psychopathology in Childhood*PSYCHOLOGY 146a. Psychopathology and Cognition**

Alterations of perceptual and conceptual processes in brain-injured and schizophrenic patients.

Enrollment limited to 15.

Miss Simmel

PSYCHOLOGY 151b. Utopian Social Psychology*PSYCHOLOGY 152b. Group Dynamics**

A consideration of classical and current approaches to the study of human interaction from the points of view of Gestalt theory, learning theory, psychoanalytic theory and role theory.

Mr. London

* Not to be given in 1970-71.

*PSYCHOLOGY 153a. Developmental Approaches to Cognition

PSYCHOLOGY 155b. Advanced Educational Psychology

This seminar will intend to apply the emerging principles of humanistic and transhumanistic psychology to the problems of learning, teaching, and education. Emphasis on experiential learning and field work.

Prerequisite: Permission of instructor required. Enrollment limited to 15.

Mr. Katz

PSYCHOLOGY 159b. Perception

A survey of the field of perception with emphasis on theory and mechanism. The interrelationship of perception and personality, phenomenology, social factors, and sensory processes will be discussed.

Mr. Hershenson

PSYCHOLOGY 160a. Color Vision and Visual Processes

Basic parameters and experiments governing visual processes and visual perception will be examined. Particular emphasis will be paid to color vision, theories and data from the points of view of physics, biology, psychology, art, and esthetics.

Mr. Stecher

*PSYCHOLOGY 161b. Field Work in Clinical Psychology

See Graduate School catalog for courses numbered 200 and above.

Romance Languages and Comparative Literature

Professor MURRAY SACHS, *Chairman*.

Comparative Literature

Professor EDWARD ENGELBERG.

French

Professor MURRAY SACHS (*Student Adviser*); Associate Professors STEPHEN J. GENDZIER, WILLIAM H. MATHESON; Assistant Professors WILLIAM J. CLOONAN (*Visiting*), JOHN F. HECKMAN, MORDECA J. POLLOCK, JUDITH R. ROTHSCHILD; MR. LAWRENCE LIPSON, MRS. JANINE REISMAN, M. MICHEL VERGNE.

Italian

MR. CHRISTOPHER J. KERTESZ.

Spanish

Professors JAMES E. DUFFY, DENAH L. LIDA; Associate Professor ANDRÉE COLLARD (*Student Adviser*); Assistant Professor LUIS E. YGLESIAS; MISS SUSAN KIRKPATRICK, MR. LAWRENCE LOCKWOOD.

For course offerings and requirements for concentration, *see* Comparative Literature, French, Italian, Linguistics, and Spanish.

* Not to be given in 1970-71.

Russian Language and Literature

(See Germanic and Slavic Languages, Page 136)

Requirements for Concentration

- A. Required of all Candidates: Russian 3aR, 97c, 106bR, 117b, 161b.
 - B. For those majoring in literature: five additional semester courses in Russian literature above Russian 10.
 - C. For those majoring in Linguistics:
 - 1. English 191a (Introduction to Linguistics) or equivalent.
 - 2. Russian 112aR.
 - 3. Two semester courses in Russian literature above Russian 10.
 - D. Two semester courses from related areas, subject to approval of Coordinator or the Chairman.
 - E. Additional Requirement for candidates for degrees with distinction: Russian 99.
- Russian 1 and 2 are full year courses and may not be dropped with credit at midyear.

RUSSIAN 1. Introductory Russian

Mr. Hanson

*RUSSIAN 1aA. Intensive Introductory Russian

RUSSIAN 2. Intermediate Russian

Prerequisite: Russian 1, appropriate placement score, or permission of the instructor.

Mr. Szulkin

*RUSSIAN 3aR. Intermediate Conversation and Composition

Prerequisite: Permission of the instructor.

RUSSIAN 5a. Accelerated Second Year Russian

An intensive one-semester course for students whose placement score or performance in Russian 1 indicates an advanced preparation.

Prerequisite: Permission of the Coordinator or the Chairman. *Mr. Hanson*

*RUSSIAN 5aR. Accelerated Second Year Russian

RUSSIAN 10. Readings in Russian Literature

Prerequisite: Russian 2 or 5a, appropriate placement score, or permission of the instructor.

Miss Dalton and Miss Ketchian

RUSSIAN 97c. Tutorial

Prerequisite: Permission of the instructor.

Staff

See Linguistics Program.

RUSSIAN 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the adviser to concentrators and the Chairman of the Department.

Staff

° Not to be given in 1970-71.

RUSSIAN 99. Senior Research

Students who are candidates for a degree with honors in Russian Literature or Linguistics must register for this course and prepare an honors thesis under faculty direction. Staff

RUSSIAN 106bR. Advanced Russian Conversation, Composition, and Reading

Prerequisite: Russian 10 or permission of instructor. Miss Dalton

*RUSSIAN 112aR. Theory of Language

RUSSIAN 117b. Pre-Nineteenth Century Russian Literature

Prerequisite: Russian 10 or permission of the instructor. Mr. Szulkin

*RUSSIAN 120b. The Long Poems by Pushkin

*RUSSIAN 138a. Nineteenth Century Prose, excluding Tolstoy and Dostoevsky

*RUSSIAN 139a. Nineteenth Century Poetry, excluding Pushkin

*RUSSIAN 141b. The Russian Short Story

RUSSIAN 145b. Dostoevsky

Prerequisite: Russian 10 or permission of instructor. Miss Ketchian

RUSSIAN 146a. Tolstoy

Prerequisite: Russian 10 or permission of instructor. Miss Dalton

*RUSSIAN 147a. Slavic Drama

RUSSIAN 149a. Soviet Literature

Prerequisite: Russian 10 or permission of instructor. Mr. Szulkin

RUSSIAN 161b. The Structure of Modern Literary Russian

Prerequisite: Permission of instructor. Mr. Hanson

RUSSIAN 177a. The Russian Novel: Tolstoy to Dostoevsky

See English 177a. Mr. Rahv

Sociology

Professor PHILIP E. SLATER, *Chairman*; Professors EGON BITTNER, PAUL KECSKEMETI (*Visiting*), MORRIS S. SCHWARTZ, MAURICE R. STEIN, EUGENE V. WALTER (*Visiting*), KURT H. WOLFF; Associate Professors GORDON FELLMAN, B. ZVI SOBEL (*Adjunct*), IRVING K. ZOLA; Assistant Professors JEROME BOIME, CHARLES DERBER, CHARLES FISHER, NEIL FRIEDMAN, CALVIN HICKS, ROSABETH MOSS KANTER, LARRY ROSENBERG, GEORGE ROSS, RICHARD SENNETT, SAMUEL E. WALLACE; MR. C. HAMPDEN-TURNER, MR. WILLIAM PHELAN.

* Not to be given in 1970-71.

Requirements for Concentration

Required of all Candidates: Eight semester courses in Sociology, plus two semesters, above the introductory level, in other departments in the School of Social Science. Honors candidates take an additional course, Sociology 99.

SOCIOLOGY 2b. History of Sociological Theory

A synopsis of political and social thought from Greeks to the modern period, with emphasis on their relevance for modern political and sociological analysis.

Mr. Kecskemeti

SOCIOLOGY 3a. Sociological Theory

An analysis of forms of oppression in modern society including the exploitation of poor by rich, women by men, blacks by whites, children by parents and teachers, the less intelligent by the more intelligent. A focus both on the social structural bases of oppression and the psychology and consciousness of oppressor and oppressed. An analysis of social and psychological conditions generating struggle and emancipation from domination and oppression.

Mr. Derber

*SOCIOLOGY 4b. Basic Concepts in Sociology

SOCIOLOGY 5a. Topics in Contemporary Society

The course will provide an overview of topics covered in present-day sociological investigations. It will deal with major groups and institutions in modern society, as well as broader concepts such as social norms, status and role, social structure, and socialization. Generally speaking, the course should be taken as an introduction to the discipline.

Mr. Bittner

SOCIOLOGY 6a. Concepts of the Social Order

Analysis of fundamental categories by reference to social position; status, role, and class; and, on the other hand, by regard to concepts of transposition; competition, conflict, and violence.

Mr. Hampden-Turner

SOCIOLOGY 7a. Basic Survey of Sociology

Using Marx, Weber, and the symbolic interactionists as guides, this course will explore some chronic modern social problems by means of discussion, analysis, and field trips.

Mr. Fisher

SOCIOLOGY 20a. Social Dynamics

Social stability and instability. Causes of instability. Instability resulting from growth; instability resulting from decline and calamity. Progress, stagnation, and retrogression. Irreversible and reversible change. Cultural change.

Mr. Kecskemeti

SOCIOLOGY 90a,b. Directed Independent Study

This will be a 16-credit course. Students taking it will be expected to work out a plan of study for one semester with the help of two faculty members. This plan is to be submitted to the undergraduate committee of the department for its approval. Enrollment will be limited and final choice made by the whole department. This course should be considered by those students who have a well developed or developing program of study to which they wish to dedicate themselves deeply.

Staff

SOCIOLOGY 97a,b. Group Readings and Research in Sociology

Group readings and reports under the direction of a faculty supervisor.

Staff

SOCIOLOGY 98a,b. Individual Readings and Research in Sociology

Individual readings and reports under the direction of a faculty supervisor.

Staff

SOCIOLOGY 99. Senior Research

Seniors who are candidates for degrees with honors in sociology are required to register for this course and, under the direction of a member of the faculty, prepare an honors thesis on a suitable topic.

Staff

For Undergraduate and Graduate Students***SOCIOLOGY 100a. Development of Modern Sociology****SOCIOLOGY 101a,b. Sociology of Conflict and War**

Antagonistic processes in various social settings. Antagonism and the social structure. Crisis situations. Origin and resolution of crises. Effects of crises. Evolution and revolution.

Messrs. Kecskemeti and Phelan

SOCIOLOGY 102aR. Social Psychiatry

Topics such as the following will be explored: psychological and sociological definitions of mental illness and health; the pathological, the disturbed, and the disturbing in our personal lives, specialized roles, institutional structures and societal forms. Small group discussions will be oriented toward understanding manifestations of pathology and interpersonal difficulty.

Prerequisite: Consent of the instructor.

Mr. Schwartz

SOCIOLOGY 104b. Sociology of Education**SOCIOLOGY 106a,b. Sociology of Literature****SOCIOLOGY 107a,b. Issues in Social Psychology**

A survey and critical evaluation of selected theories of the self which stress social communication (e.g., James, Mead, Goffman, Sullivan, Laing and Gurdjieff).

Mr. Rosenberg

SOCIOLOGY 108b. Critiques of Contemporary Society

The focus of this course is critical social analysis of modern society, to be considered especially in terms of implications for strategies of political action. Readings include the social analyses of Marcuse, Mills, Galbraith, Ellul, McLuhan, Barrington Moore, and others and programatic strategies ranging from the perspectives of Abby Hoffman to those of Andre Gorz, the New Left, and others. Students will be encouraged to develop their own critical perspectives. This course should be viewed as an introduction to a very large set of political, social, and personal issues.

Messrs. Derber and Friedman

• Not to be given in 1970-71.

SOCIOLOGY 110a. Sociology of Knowledge

History and historical interpretation of the sociology of knowledge, with particular emphasis on German and recent American literature.

Mr. Wolff

SOCIOLOGY 111a,b. Political Sociology

An in-depth analysis of patterns of social conflict and consensus and their relationship to political change and stability. This theme will be traced through a study of the following: historical studies on the development of totalitarianism and democracy, political community power studies, sociological studies of social movements and revolutions, and an analysis of political parties and the electorate.

Mr. Ross

SOCIOLOGY 112b. Social Stratification

A study of life styles and relationships among different "classes" in American society, theories of social class and political order, and studies of class and social change in revolutionary and other societies.

Mr. Fellman

*SOCIOLOGY 116a. Topics in Social History of Black People in America

SOCIOLOGY 117a. Sociology of Occupations

A comparison of work and occupational systems in various cultures. Social organization of occupations and the place of work in the life of the individual.

Mr. Bittner

SOCIOLOGY 118a. The Sociology of the American Jew

See NEJS 163a.

Mr. Sklare

SOCIOLOGY 118b. Jewish Communal Structure and Organization

See NEJS 164b.

Mr. Sklare

*SOCIOLOGY 122a. Sociology of Power

SOCIOLOGY 122b. Sociology of Power

An analysis of the consolidation and disaffection of political interaction, obedience and ideology, proceeding on the assumption that the political problem designates a tension between the inhibition and release of alternative forms of community.

Mr. Phelan

SOCIOLOGY 125a. Quantitative Methods in Research

A workshop on social science methods for studying power structures, imperialism, racism, etc. Discussion of the ideological nature of social science research. Enrollment limited by permission of instructor.

Mr. Friedman

SOCIOLOGY 126a. Sociology of Deviance

Deviance as social process, its nature and conception, its functional as well as dysfunctional aspects. Survey of theory and research. Concentration on selected instances of individual and social pathology.

Mr. Zola

* Not to be given in 1970-71.

SOCIOLOGY 126b. The Institutions of Social Control

Focus is primarily on the social and institutional response to deviance, however defined, once it occurs. The formal and informal sanctions, the range of punishments from norms to laws, from hospitals to prisons. The agents of social control—the police, the F.B.I. and the other “helping” professions. *Mr. Zola*

SOCIOLOGY 127b. Deviant Communities

The origins, recruitment, and socialization practices, life styles, social control processes, and societal relations of unconventional and deviant communities, including religious, political, and criminal groups. The nature of conventional communities will be understood in comparison. Readings will encompass material from the areas of deviance, collective behavior and social movements. Field work will be required. *Mrs. Kanter*

SOCIOLOGY 129a. The Urban Family*SOCIOLOGY H131a. Israel Social Institutions (Hiatt Program in Israel)**

Demography, immigration, the native born and the Arabs, pre-state institutional structure; absorption of immigrants, the second generation; changes in institutional structure and social policy; special problems including ethnic settlement, status and stratification, cultural policy. *4 credits.* *Mr. Sobel*

SOCIOLOGY 132b. Urban Sociology**SOCIOLOGY 133b. Comparative Urban Cultures****SOCIOLOGY 135a. Group Process**

Interpretation of interpersonal behavior and group development, based in part on observation of the discussion group itself. Readings will include material from psychology and social anthropology as well as sociology.

Open to seniors and graduate students.

Mr. Slater

SOCIOLOGY 135aR. Group Process**SOCIOLOGY 135b. Advanced Group Process****SOCIOLOGY 142a. Social Psychology: Psychoanalytic Theory and Society**

Implications of the psychoanalytic view of personality for the nature and functioning of social institutions, social change, and the possibilities of utopia.

Mr. Fellman

SOCIOLOGY 143b. Ethnographic Studies in Social Interaction

In this course students will carry out field work studies of social interactions. There will be field exercises, theoretical readings, class discussions, and lectures. A major paper will be required.

Course enrollment limited to 25 students.

Mr. Friedman

* Not to be given in 1970–71.

SOCIOLOGY 145a. Sociology of Life Styles

An investigation of the "counter-culture" developing among contemporary youth, with particular concern for the political implications of the cultural revolution. Special attention will be given to new communal styles of life involving the reconstitution of personal relationships and family life, new conceptions of work and play, and a reintegration of political and personal life. *Mr. Derber*

SOCIOLOGY 147a,b. Social Psychology of Organizations and Groups

The impact of social structure and social arrangements on individuals and groups. Issues such as communication and trust, authority and influence, self-identity-formation and personal change, and teaching and learning will be examined in a large number of organizations and groups including the class group itself, schools (from ghetto schools to progressive schools to universities), mental hospitals, Synanon and other peer self-help groups, "brainwashing" organizations, bureaucracies and work organizations, utopian communities, religious orders and encounter groups. Field work and extensive participation in class discussions and group exercises will be required. *Mrs. Kanter*

SOCIOLOGY 148a,b. Social Psychology of Consciousness

The course will be organized around the concept of "conscious energy" as revealed in some of the many programs designed to awaken higher levels of consciousness (e.g., Zen, Yoga, Sufism, psychedelic drugs, and the teachings of G. I. Gurdjieff). The course will include a workshop in Hatha Yoga. *Mr. Rosenberg*

SOCIOLOGY 150a. Sociology of Revolutionary Change

Comparative study of revolutionary change, using historical evidence and material, with special emphasis on the bourgeois revolution, the Marxist-Leninist Revolution, and the third world revolution. *Mr. Ross*

SOCIOLOGY 152b. Sociology of Repression

This course is an enquiry into the origins and forms of repression in modern life. It examines not only overt repression of social groups through violent means, but the structures of a technological society that encourage non-violent self-repression. *Mr. Sennett*

SOCIOLOGY 154b. Sociology of Science

Science is studied as it is done by men who live in political, social, intellectual, professional, and moral worlds. *Mr. Fisher*

SOCIOLOGY 155b. Social Movements

The politics of the impatient scrutinized from the perspectives of social psychology. Attempts will be made to understand the structure and strategies of cadres. Examples are drawn from contemporary America. *Mr. Fisher*

SOCIOLOGY 160a,b. Sociology of Art: Afro-American Art, Literature, Music, and Theater. World as View and World as Event.

This course will trace the ways in which the emergence of a self-conscious black ethno-centric culture becomes a prism through which the Puritan ethos is critized and an alternative culture is created. Authors covered will include Dunbar, Walker, Langston Hughes, Locke, Toomer, with Richard Wright as a transitional figure, leading to Killens, Ellison, Saunders, Cleaver, Hernton, among others. *Mr. Hicks*

SOCIOLOGY 161a. Historical Sociology: An Exploration of the Black Presence in American History

Starting with the Revolution and proceeding through the Civil War, Reconstruction, World War I, World War II, and the recent period. Topics included will be class and caste, black protest, black churches, and others to be selected partly depending upon the interest of the group. *Mr. Hicks*

SOCIOLOGY 162b. Sociology of Language and Communication

This course presents a social and political conception of language as one among other forms of communication. It focuses on the oral "folklorish" quality of black society, in an effort to contrast the stress on communication through taste, touch, and smell in this group, with the emphasis on sight and hearing in the general culture. *Mr. Hicks*

SOCIOLOGY 169a. Religion and Ethnicity in American History

See American Civilization 169a.

Mr. Fuchs

SOCIOLOGY 170b. Americans Overseas

See American Civilization 170b.

Mr. Fuchs

SOCIOLOGY 171a. Afro-Americans in the United States

See American Civilization 150a.

Mr. Fuchs

SOCIOLOGY 172b. The Family in the United States

See American Civilization 150b.

Mr. Fuchs

SOCIOLOGY 188b. Sociology of Law

The legal order considered in a framework of cross-cultural and historical comparison. The role of the instruments of the law and of the administration of justice in contemporary society. *Mr. Bittner*

***SOCIOLOGY 190b. Social Organization of Medical Settings**

***SOCIOLOGY 191a. Health, Community, and Society**

***SOCIOLOGY 192. Sociology of the Medical Professions**

See Graduate School catalog for courses numbered 200 and above.

Spanish Language and Literature

Requirements for Concentration: 12 semester courses

A. Required of all Concentrators: Spanish 3b, 97a, 106b, 120a and b, 125aR, 140a, 150aR, and two half courses chosen from the Spanish course offerings above Spanish 10.

B. Two half courses chosen from the following: Comparative Literature 116b, 141b, 145a and b, 181b.

* Not to be given in 1970-71.

C. Additional requirement for candidates for degree with distinction: Spanish 99.

D. Recommended: two half courses in closely related fields, particularly in the School of Humanities or Creative Arts.

Spanish 1 and 2 are full year courses and may not be dropped with credit at midyear.

Spanish 10 may be divided with the permission of the Coordinator or the Chairman.

SPANISH 1. Introductory Spanish *Staff*

SPANISH 2. Intermediate Spanish

Prerequisite: Spanish 1, appropriate placement score, or permission of the instructor. *Staff*

SPANISH 3b. Advanced Conversation and Composition

Prerequisite: Spanish 5a or permission of the instructor. *Staff*

SPANISH 5a. Accelerated Second Year Spanish

An intensive one-semester course for students whose placement score or performance in Spanish 1 indicates an advanced preparation.

Prerequisite: Permission of the Coordinator or the Chairman.

Miss Kirkpatrick

SPANISH 10. Readings in Spanish Literature

Prerequisite: Spanish 5a, appropriate placement score, or permission of the instructor. *Staff*

SPANISH 97a. Senior Tutorial *Staff*

SPANISH 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the adviser to concentrators and the Chairman of the Department.

Staff

SPANISH 99. Senior Research

Students who are candidates for a degree with honors in Spanish must register for this course and prepare an honors thesis under faculty direction. *Staff*

SPANISH 106bR. Studies in Advanced Spanish Conversation and Composition

Prerequisite: Spanish 10 or permission of instructor. *Mrs. Lida*

SPANISH 120a. Cervantes

Prerequisite: Spanish 10 or permission of instructor. *Mrs. Lida*

*SPANISH 123a. The Sixteenth Century

Prerequisite: Spanish 10 or permission of instructor.

* Not to be given in 1970-71.

SPANISH 125a. The Seventeenth Century

Prerequisite: Spanish 10 or permission of instructor.*Miss Collard*

*SPANISH 130a. Nineteenth Century Spanish Literature

Prerequisite: Spanish 10 or permission of instructor.

*SPANISH 140a. Spanish Lyric Poetry

Prerequisite: Spanish 10 or permission of instructor.

*SPANISH 150aR. Spanish Drama of the Siglo de Oro

Prerequisite: Spanish 10 or permission of instructor.

SPANISH 160aR. Readings in Latin American Literature

Prerequisite: Spanish 10 or permission of instructor.*Miss Collard*

SPANISH 160bR. Latin American Literature: The Revolution

Prerequisite: Spanish 10 or permission of instructor.*Mr. Yglesias*

*SPANISH 162a. Studies in Argentine and Brazilian Literature

Prerequisite: Spanish 10 or permission of instructor.

*SPANISH 163b. Latin American Literature: Pre-Modernism

Prerequisite: Spanish 10 or permission of instructor.

SPANISH 170b. The Generation of 1898

Prerequisite: Spanish 10 or permission of instructor.*Miss Kirkpatrick*

*SPANISH 180b. Twentieth Century Spanish Literature

Prerequisite: Spanish 10 or permission of instructor.

Theater Arts

Associate Professor JAMES H. CLAY, *Chairman*; Professors HOWARD BAY, WILLIAM GIBSON (*Visiting*); Associate Professors MARTIN HALPERN, JOHN F. MATTHEWS, CHARLES W. MOORE; Assistant Professors MAUREEN HENEGHAN, DOUGLAS R. MADDOX, PETER M. SANDER; Instructors NORMAN RIZZI, ANNE TOLBERT; Lecturers TIMOTHY ASCH, MAGDELINE CONOMOS (*Visiting*), KENNETH H. GOLDEN (*Student Adviser*), ANDREW J. SILVER, DAVID WESTPHAL.

Artists-in-Residence: HOWLAND CHAMBERLAIN, KENYON MARTIN, K. LYPE O'DELL, DAVID PALMER, MERVYN WILLIAMS.

Requirements for Concentration

A. All concentrators must complete 12 semester courses in the department. These must include Theater Arts 1, 2a, and 3 semester courses in dramatic literature.

B. With the adviser's permission, certain courses offered in other departments may be applied to the requirements for concentration.

C. All concentrators are required to serve on the production crews of departmental productions twice in the sophomore year, once in the junior and once in the senior year.

D. The award of departmental distinction will be conferred by the staff for exceptional scholarship or creativity.

E. With the permission of the adviser, instructor and director of undergraduate studies, upperclassmen may enroll in graduate courses.

THEATER ARTS 1. Introduction to Drama and the Theater

Three things are provided, and in this order of importance: (1) an introduction to some of the world's great plays from the classical to the present era; (2) a study of what distinguishes the theater from other related arts; (3) historical background so that the plays can be considered in terms of the production conditions for which they were written.

Open to freshmen.

Mr. Clay

THEATER ARTS 2a. Physical Production I

An introductory course to the backstage crafts intended to give the student a broad understanding of scene, lighting, and costume design, and the technical procedures employed in each of the areas. Three classroom hours per week plus participation in the production crews of one of the year's productions. Normally taken by concentrators in their sophomore year.

Laboratory fee: \$5. 4 credits.

Mr. Maddox and Miss Heneghan

THEATER ARTS 2b. Physical Production II

Continued study of the production elements of the theater.

Prerequisite: Theater Arts 2a.

Mr. Maddox

THEATER ARTS 3. Acting

Four classroom hours per week, plus participation in the production crews of one of the year's productions.

Open to freshmen with permission of the instructor.

Messrs. Moore and Sander

THEATER ARTS 5. Speech Studies for the Actor

Enrollment limited to 15.

Miss Conomos

THEATER ARTS 7. Modern Dance Techniques and Movement Exploration

Miss Tolbert

THEATER ARTS 9. Mime and Body Movement

A theater course designed for people interested in communication and creative movement. Using the body as an instrument of silence through refined, precise gesture—as though words did not exist.

Mr. Martin

THEATER ARTS 10. Film Workshop—Introductory

An intensive course in film production from concept to final prints including treatment, writing, photography, lighting, sound recording, editing, sound mixing, and laboratory procedure and cinemagraphic objectives. Students will work in small units to produce films for release in the fields of education and public television. Enrollment by permission of instructor only and limited to 15.

Laboratory fee: \$15.

Mr. Westphal

THEATER ARTS 11. Film Workshop—Intermediate

See description Theater Arts 10. Enrollment by permission of instructor only and limited to 15.

Laboratory fee: \$15.

Mr. Golden

THEATER ARTS 12. Film Workshop—Advanced

See description Theater Arts 10. Enrollment by permission of instructor only and limited to 15.

Laboratory fee: \$15.

Staff

THEATER ARTS 22. Scene Design and Stage Lighting

An advanced study of the styles and techniques of scene design and an introduction to basic rendering and visual presentation techniques.

Prerequisite: Theater Arts 2. *Offered in alternate years.*

Mr. Maddox



*THEATER ARTS 26a. Costume Design

*THEATER ARTS 26b. Advanced Stage Techniques and Theater Architecture

THEATER ARTS 33. Advanced Acting

Four classroom hours per week plus participation in one production crew during the year.

Prerequisite: Theater Arts 3 and permission of instructor.

Messrs. Sander and Moore

THEATER ARTS 97a and b. Tutorial

At the discretion of the Department, students will be given individual advanced training in acting, directing, dramatic writing, and the design-technical areas. *Staff*

THEATER ARTS 98. Independent Study

Students may elect either a research project, a production project, or a combination of the two. Approval by the staff must be obtained at the end of the junior year. A University average of B is prerequisite. *Staff*

THEATER ARTS 102. Directing

A beginning course. Scenes are prepared outside of class, then performed for criticism in class. Assignments gradually increase in difficulty and end with the directing of a one-act play. Participation in one production crew during the year is required.

Prerequisite: Theater Arts 3. Permission of instructor required. *Staff*

*THEATER ARTS 104. Dramatic Writing

For Undergraduate and Graduate Students

*THEATER ARTS 115b. Modern Comedy

THEATER ARTS 122a. Modern Drama

The major European dramatists from the mid-nineteenth century through the 1920's, including Ibsen, Strindberg, Chekhov, Synge, Shaw, and Pirandello.

Mr. Halpern

THEATER ARTS 123b. Contemporary Drama

Continental, British, and American dramatists from the 1920's to the present, including Brecht, Lorca, Giraudoux, Sartre, Beckett, Genet, Eliot, Deurrenmatt, O'Neill, Albee, and Weiss.

Mr. Halpern

THEATER ARTS 124a and 124aR. Shakespeare

See English 3a and 3aR.

Mr. Levitan

THEATER ARTS 125a. History of American Drama

A study of the American theater from its beginning to the First World War.

See American Civilization 125a.

Mr. Matthews

* Not to be given in 1970-71.

THEATER ARTS 125b. History of American Drama

A study of the American theater from the First World War to the present.
See American Civilization 125b. Mr. Matthews

*THEATER ARTS 135. The Popular Arts

THEATER ARTS 140a. Introduction to Film: The Documentary

A screening and analysis course covering documentary films which reflect changing American life and standards in the twentieth century. *Mr. Westphal*

THEATER ARTS 140b. Introduction to Film: History of the Cinema

A survey course with screenings and analysis of the great film classics, including expressionism, neo-realism, and surrealism. *Mr. Silver*

*THEATER ARTS 141. Film in Research

THEATER ARTS 142a. Film Analysis I

Viewing and discussion of fifteen films to stimulate understanding and appreciation of essentials of the media. An attempt to discover the capacities of film and to suggest the properties that must be investigated in preparation for criticism. Class discussions augmented by visiting lecturers whenever possible.

Fifteen short papers required. Enrollment limited to 30.

Laboratory fee: \$7.50.

Mr. Silver

* Not to be given in 1970-71. Offered in 1971-72.



THEATER ARTS 142b. Film Analysis II

Intensive study of three film makers (Bergman, Antonioni, and Godard) with an eye to developing a concept of cinematic style. An analysis of cinematic technique. An analysis of how the vocabulary of film criticism has developed as the technique has developed.

Prerequisite: Theater Arts 142a and permission of instructor.

Laboratory fee: \$7.50.

Mr. Silver

THEATER ARTS 143a. Seminar in Film Writing

Enrollment limited to twelve students.

Mr. Golden

THEATER ARTS 143b. Seminar in Film Writing

Enrollment limited to twelve students.

Mr. Golden

THEATER ARTS 151. Tragedy

Using Greek, Elizabethan and modern plays as data, a critical enquiry into the philosophical problems and paradoxes posed by tragic drama. Among views examined are those of Aristotle, Plato, Tertullian, Racine, Hume, Lessing, Hegel, Schopenhauer, Nietzsche, various Marxists and Freudians, and such contemporary theorists as Cassirer.

See Philosophy 154.

Mr. Matthews

*THEATER ARTS 165. Greek and Roman Drama

THEATER ARTS 170a. Elizabethan and Jacobean Drama

See English 142a.

Mr. Smith

*THEATER ARTS 171b. Modern British and American Drama

See English 185b.

Urban Studies

Requirements for Concentration and Course Offerings will be announced in the Fall of 1970.

Yiddish Language and Literature

YIDDISH 1. Introductory Yiddish

A full-year course and may not be dropped with credit at midyear. *Mr. Szulkin*

See NEJS 21.

* Not to be given in 1970-71.

YIDDISH 2. Intermediate Yiddish

Conversation, composition and grammar.

Prerequisite: Yiddish 1 or its equivalent.

Mr. Rothenberg

See NEJS 24.

YIDDISH 10. Readings in Yiddish Literature

The aims of the course are to acquaint the student with the writings of several outstanding authors and to increase his proficiency in reading, comprehension, and analysis.

Prerequisite: Yiddish 2 or its equivalent.

Mr. Goldsmith

See NEJS 25.

YIDDISH 171b. Trends and Values in Yiddish Literature

See NEJS 171b.

Mr. Goldsmith

YIDDISH 173a. Seminar in Yiddish Literature: American Yiddish Poetry

See NEJS 173a.

Mr. Goldsmith

YIDDISH 173b. Seminar in Yiddish Literature: Contemporary Poetry

See NEJS 173b.

Mr. Goldsmith





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Robert Brannum	<i>Lecturer in Physical Education</i>
Leo Bronstein	<i>Professor Emeritus of Fine Arts</i>
Ph.D., University of Paris, Sorbonne	
***Edgar H. Brown, Jr.	<i>Professor of Mathematics</i>
Ph.D., Massachusetts Institute of Technology	
Paul L. Brown	<i>Assistant Professor of Fine Arts</i>
M.F.A., Yale School of Art and Architecture	
David A. Buchsbaum	<i>Professor of Mathematics</i>
Ph.D., Columbia University	
Richard M. Burian	<i>Assistant Professor of Philosophy</i>
B.A., Reed College	
Max Chrétien	<i>Associate Professor of Physics</i>
Ph.D., University of Basel	
James H. Clay	<i>Associate Professor of Theater Arts</i>
Ph.D., University of Illinois	

* On Leave, 1970-71.

*** On Leave, Spring Term, 1970-71.

Arlene L. Clift	<i>Assistant Professor of English</i>
Ph.D., Harvard University	
William J. Cloonan	<i>Visiting Assistant Professor of French</i>
Ph.D., University of North Carolina	<i>and Comparative Literature</i>
*Helen Codere	<i>Professor of Anthropology</i>
Ph.D., Columbia University	
Edward Cohen	<i>Assistant Professor of Music</i>
M.A., University of California, Berkeley	
H. Daniel Cohen	<i>Assistant Professor of Physics</i>
Ph.D., Stanford University	
Jacob Cohen	<i>Assistant Professor of American Civilization</i>
M.A., Yale University	
Jacques Cohen	<i>Assistant Professor of Physics</i>
Ph.D., University of Illinois	
Saul G. Cohen	<i>Breskin Professor of Chemistry</i>
Ph.D., Harvard University	
Andrée M. Collard	<i>Associate Professor of Spanish</i>
Ph.D., Harvard University	
Magdaline Conomos	<i>Visiting Lecturer in Voice and Speech</i>
B.S., Kent State University	
George L. Cowgill	<i>Associate Professor of Anthropology</i>
Ph.D., Harvard University	
James V. Cunningham	<i>Prosswimmer Professor of English and Humanities</i>
Ph.D., Stanford University	
***Margaret Dalton	<i>Assistant Professor of Russian</i>
Ph.D., Harvard University	
Vladimir Dediđer	<i>Visiting Professor in the History of Ideas</i>
Ph.D., Belgrade University	
John Putnam Demos	<i>Associate Professor of History</i>
M.A., University of California, Berkeley	
Charles Derber	<i>Assistant Professor of Sociology</i>
A.M., University of Chicago	
Stanley Deser	<i>Professor of Physics</i>
Ph.D., Harvard University	
F. Trenery Dolbear, Jr.	<i>Associate Professor of Economics</i>
Ph.D., Yale University	
Paul B. Dorain	<i>Professor of Chemistry</i>
Ph.D., Indiana University	
Emily P. Dudek	<i>Adjunct Assistant Professor of Chemistry</i>
Ph.D., Radcliffe College	
*James E. Duffy	<i>Professor of Romance Literature and History</i>
Ph.D., Harvard University	
Arthur Edelstein	<i>Assistant Professor of English</i>
A.M., Stanford University	
David Eisenbud	<i>Lecturer and Research Associate in Mathematics</i>
M.S., University of Chicago	
Edward Engelberg	<i>Professor of English and Comparative Literature</i>
Ph.D., University of Wisconsin	

• On Leave, 1970-71.

••• On Leave, Spring Term, 1970-71.

Herman T. Epstein	<i>Professor of Biophysics</i>
Ph.D., University of Michigan	
Robert Evans, Jr.	<i>Associate Professor of Economics</i>
Ph.D., University of Chicago	
Gerald D. Fasman	<i>Professor of Biochemistry</i>
Ph.D., California Institute of Technology	
(Established Investigator of the American Heart Association)	
Gordon A. Fellman	<i>Associate Professor of Sociology</i>
Ph.D., Harvard University	
David Hackett Fischer	<i>Professor of History</i>
Ph.D., Johns Hopkins University	
Michael Fishbane	<i>Instructor in Hebrew and Biblical Studies</i>
M.A., Brandeis University	
Charles S. Fisher	<i>Assistant Professor of Sociology</i>
Ph.D., University of California, Berkeley	
* Emanuel Flumere	<i>Associate Professor of Physical Education</i>
M.Ed., Boston University	
Madeline J. Foley	<i>Lecturer in Music and Artist-in-Residence</i>
M.S., Juilliard Graduate School	
Joseph Fontenrose	<i>Visiting Professor of Classics</i>
Ph.D., University of California, Berkeley	
(University of California, Berkeley)	
John R. Frederiksen	<i>Assistant Professor of Psychology</i>
Ph.D., Princeton University	
** David M. Freifelder	<i>Associate Professor of Biochemistry</i>
Ph.D., University of Chicago	
Eberhard Frey	<i>Assistant Professor of German</i>
Ph.D., Cornell University	
Neil L. Friedman	<i>Assistant Professor of Sociology</i>
Ph.D., Harvard University	
Lawrence H. Fuchs	<i>Jaffe Professor of American Civilization</i>
Ph.D., Harvard University	
Chandler M. Fulton	<i>Associate Professor of Biology</i>
Ph.D., Rockefeller Institute	
Joachim E. Gaehde	<i>Wien Professor in the History of Fine Arts</i>
Ph.D., New York University	
John G. Gagliardo	<i>Visiting Lecturer in History</i>
Ph.D., Yale University	
Stephen J. Gendzier	<i>Associate Professor of French</i>
Ph.D., Columbia University	
Martin Gibbs	<i>Professor of Biology</i>
Ph.D., University of Illinois	
William Gibson	<i>Fannie Hurst Visiting Professor of Creative Literature</i>
Donald B. Giddon	<i>Adjunct Lecturer in Psychology</i>
Ph.D., Brandeis University	
Ira H. Gilbert	<i>Assistant Professor of Astrophysics</i>
Ph.D., Harvard University	

* On Leave, 1970-71.

** On Leave, Fall Term, 1970-71.

- David H. Gillespie *Assistant Professor of Biology*
Ph.D., University of Illinois
- Samuel Gitler *Jacob Ziskind Visiting Professor of Mathematics*
Ph.D., Princeton University
(*Instituto Politecnico Nacional, Mexico*)
- Nahum Norbert Glatzer *Lane Professor of Jewish History and Social Ethics*
Ph.D., University of Frankfurt
- James F. Goldberg *Assistant Professor of English*
M.A., Columbia University
- Kenneth H. Golden *Lecturer in Theater Arts*
M.A., New York University
- Sidney Golden *Fischbach Professor of Chemistry*
Ph.D., Harvard University
- Maynard Goldman *Consultant in Music*
B.Mus., Boston University
- Emanuel S. Goldsmith *Lecturer in Hebrew and Yiddish Literature*
M.H.L., Jewish Theological Seminary
- William M. Goldsmith *Assistant Professor of American Civilization*
Ph.D., Columbia University
- Jack S. Goldstein *Professor of Astrophysics*
Ph.D., Cornell University
- Cyrus H. Gordon *Foster Professor of Mediterranean Studies*
Ph.D., University of Pennsylvania
- James R. Green *Instructor in History*
B.A., Northwestern University
- Robert S. Greenberg *Assistant Professor of Philosophy*
Ph.D., University of Chicago
- *Peter Grippe *Avnet Professor of Sculpture*
- Marcus T. Grisaru *Associate Professor of Physics*
Ph.D., Princeton University
- **Eugene P. Gross *Avnet Professor of Physics*
Ph.D. Princeton University
- Allen R. Grossman *Associate Professor of English*
Ph.D., Brandeis University
- *Lawrence Grossman *Professor of Biochemistry*
Ph.D., University of Southern California
(*Career Award, National Institutes of Health*)
- *Ernest Grunwald *Professor of Chemistry*
Ph.D., University of California, Los Angeles
- Robert R. Gustavson *Instructor in Physical Education*
M.A., University of Connecticut
- *Benjamin Halpern *Professor of Near Eastern Studies*
Ph.D., Harvard University
- Martin Halpern *Associate Professor of Theater Arts*
Ph.D., Harvard University
- Charles Hampden-Turner *Visiting Lecturer in Sociology*
- Eugenia Hanfmann *Levin Professor of Psychology*
Ph.D., University of Jena

* On Leave, 1970-71.

** On Leave, Fall Term, 1970-71.

- David A. Hanson *Lecturer in Russian*
A.B., Harvard University
- Victor Harris *Professor of English*
Ph.D., University of Chicago
- Elsie Hasskarl *Lecturer in Biology*
B.A., Lake Forest College
- Elie Hayon *Adjunct Associate Professor of Chemistry*
Ph.D., King's College, Durham University
- John F. Heckman *Assistant Professor of French and Comparative Literature*
Ph.D., Cornell University
- Peter Heller *Associate Professor of Physics*
Ph.D., Harvard University
- Michael J. Henchman *Associate Professor of Chemistry*
Ph.D., Yale University
- James B. Hendrickson *Professor of Chemistry*
Ph.D., Harvard University
- Maureen Heneghan *Assistant Professor of Costume Design*
- Maurice Hershenson *Associate Professor of Psychology*
Ph.D., Yale University
- Calvin Hicks *Assistant Professor of Sociology*
B.A., Drake University
- Donald Hindley *Associate Professor of Politics*
Ph.D., Australian National University
- Milton Hindus *Professor of English*
M.S., City College of New York
- Larry Hirschhorn *Instructor in Economics*
A.B., Brandeis University
- Harrison Hoblitzelle *Lecturer in English*
Ph.D., Columbia University
- Christoph Hohenemser *Assistant Professor of Physics*
Ph.D., Washington University
- Thomas C. Hollocher, Jr. *Associate Professor of Biochemistry*
Ph.D., University of Rochester
- Benjamin B. Hoover *Professor of English*
Ph.D., University of California, Berkeley
- David A. Horr *Assistant Professor of Anthropology*
Ph.D., Harvard University
- Laura Hourtienne *Assistant Professor of German*
Ph.D., Bryn Mawr College
- Everett C. Hughes *Professor Emeritus of Sociology*
Ph.D., University of Chicago
- John N. Hughes *Associate Professor of Physical Education*
Ed.M., Framingham State College
- Robert C. Hunt *Associate Professor of Anthropology*
Ph.D., Northwestern University
- Hugh E. Huxley *Visiting Professor of Biology and Biomedical Science*
Ph.D., Cambridge University
- Gerald N. Izenberg *Assistant Professor in the History of Ideas*
A.M., Harvard University

- Ray S. Jackendoff *Assistant Professor of English*
Ph.D., Massachusetts Institute of Technology
- David Jacobson *Assistant Professor of Anthropology*
Ph.D., University of Rochester
- William P. Jencks *Rosenstiel Professor of Biochemistry*
M.D., Harvard Medical School
- Peter C. Jordan *Associate Professor of Chemistry*
Ph.D., Yale University
- Lisel K. Judge *Associate Professor of Physical Education*
M.Ed., Northeastern University
- Julian N. Kanfer *Adjunct Associate Professor of Biochemistry*
Ph.D., George Washington University
- Rosabeth Moss Kanter *Assistant Professor of Sociology*
Ph.D., University of Michigan
- David Kaplan *Associate Professor of Anthropology*
Ph.D., University of Michigan
- Richard Katz *Assistant Professor of Psychology*
Ph.D., Harvard University
- Paul Kecskemeti *Visiting Professor of Sociology*
Ph.D., University of Budapest
- *Morton Keller *Proskauer Professor of Legal Institutions*
Ph.D., Harvard University
- **George A. Kelly *Associate Professor of Politics*
Ph.D., Harvard University
- Albert Kelner *Burg Professor of Microbiology*
Ph.D., University of Pennsylvania
- Christopher J. Kertesz *Lecturer in Italian and Comparative Literature*
M.A., University of Illinois
- Sonia Ketchian *Visiting Lecturer in Russian*
M.A., Harvard University
- Samuel Jay Keyser *Associate Professor of English*
Ph.D., Yale University
- Susan Kirkpatrick *Lecturer in Spanish*
A.M., Harvard University
- Lawrence E. Kirsch *Assistant Professor of Physics*
Ph.D., Rutgers University
- **James B. Klee *Associate Professor of Psychology*
Ph.D., University of Michigan
- **Attila O. Klein *Associate Professor of Biology*
Ph.D., Indiana University
- **Karen Wilk Klein *Assistant Professor of English*
Ph.D., Columbia University
- Robert Lincoln Koff *Associate Professor of Music and Artist-in-Residence*
B.Mus., Oberlin College
- Kenneth Kustin *Associate Professor of Chemistry*
Ph.D., University of Minnesota

° On Leave, 1970-71.

°° On Leave, Fall Term, 1970-71.

Ernest R. Lacheman	<i>Adjunct Professor of Cuneiform Studies</i>
Ph.D., Harvard University	
James R. Lackner	<i>Assistant Professor of Psychology</i>
B.Sc., Massachusetts Institute of Technology	
Frederic C. Lane	<i>Visiting Professor of History</i>
Ph.D., Harvard University	
Robert V. Lange	<i>Assistant Professor of Physics</i>
Ph.D., Harvard University	
*Walter V. Laqueur	<i>Professor of History of Ideas and Politics</i>
Robert J. Larner	<i>Assistant Professor of Economics</i>
Ph.D., University of Wisconsin	
Hubert P. LeBlanc, Jr.	<i>Lecturer in Physical Education</i>
A.B., Brandeis University	
Susan Leeman	<i>Research Assistant Professor of Biochemistry</i>
Ph.D., Radcliffe College	
Louis Lefebvre	<i>Hecht Professor of International Economics</i>
Ph.D., Massachusetts Institute of Technology	
I. R. Lehman	<i>Visiting Professor of Biochemistry</i>
Ph.D., Johns Hopkins University	
(Stanford University Medical Center)	
**Alan Lechuk	<i>Assistant Professor of English</i>
Ph.D., Stanford University	
James Lepowsky	<i>Lecturer and Research Associate in Mathematics</i>
A.B., Harvard College	
***Max Lerner	<i>Richter Professor of American Civilization and Institutions</i>
Ph.D., Robert Brookings Graduate School	
Martin A. Levin	<i>Assistant Professor of Politics</i>
Ph.D., Harvard University	
Harold I. Levine	<i>Professor of Mathematics</i>
Ph.D., University of Chicago	
Jerome P. Levine	<i>Professor of Mathematics</i>
Ph.D., Princeton University	
Lawrence Levine	<i>Professor of Biochemistry</i>
Sc.D., Johns Hopkins University	
(American Cancer Society Professorship)	
Norman E. Levine	<i>Assistant Professor of Physical Education</i>
B.S., Bates College	
Alan L. Levitan	<i>Assistant Professor of English</i>
Ph.D., Princeton University	
***Denah L. Lida	<i>Professor of Spanish</i>
Ph.D., University of Mexico	
David I. Lieberman	<i>Assistant Professor of Mathematics</i>
Ph.D., Massachusetts Institute of Technology	
Henry Linschitz	<i>Rubenstein Professor of Chemistry</i>
Ph.D., Duke University	
Peter Lipsitt	<i>Visiting Assistant Professor of Fine Arts</i>
M.F.A., Yale University	

° On Leave, 1970-71.

°° On Leave, Fall Term, 1970-71.

°°° On Leave, Spring Term, 1970-71.

Lawrence Lipson	<i>Lecturer in French</i>
M.Phil., Yale University	
Edgar Lipworth	<i>Professor of Physics</i>
Ph.D., Columbia University	
Joseph A. Litven	<i>Assistant Professor of Psychology</i>
Ph.D., Stanford University	
Lawrence Lockwood	<i>Lecturer in Spanish</i>
B.A., Dartmouth College	
Elaine P. Loeffler	<i>Assistant Professor of Fine Arts</i>
B.A., Smith College	
Harvey S. London	<i>Assistant Professor of Psychology</i>
Ph.D., Columbia University	
Farnsworth Loomis	<i>Rosenfield Professor of Biochemistry</i>
M.D., Harvard University	
John M. Lowenstein	<i>Professor of Biochemistry</i>
Ph.D., London University	
*Heinz M. Lubasz	<i>Associate Professor in the History of Ideas</i>
Ph.D., Yale University	
Joan D. Lukas	<i>Visiting Lecturer in Mathematics</i>
Ph.D., Massachusetts Institute of Technology	
*Joseph S. Lukinsky	<i>Assistant Professor and Director of Jewish Education</i>
Ed.D., Harvard University	
Alasdair MacIntyre	<i>Professor in the History of Ideas and Philosophy</i>
M.A., University of Manchester	
Roy C. Macridis	<i>Wien Professor of International Cooperation</i>
Ph.D., Harvard University	
Douglas R. Maddox	<i>Assistant Professor of Theater Arts</i>
M.F.A., Carnegie Institute of Technology	
Robert J. Maeda	<i>Assistant Professor of Fine Arts</i>
Ph.D., Harvard University	
Farahe Maloof	<i>Adjunct Associate Professor of Biochemistry</i>
M.D., Tufts College Medical School	
Robert A. Manners	<i>Professor of Anthropology</i>
Ph.D., Columbia University	
*William H. Matheson	<i>Associate Professor of French</i>
Ph.D., University of Michigan	
Teruhisa Matsusaka	<i>Professor of Mathematics</i>
D.Sc., Kyoto University	
John F. Matthews	<i>Associate Professor of Theater Arts</i>
A.B., University of Cincinnati	
(On the Schulman Foundation)	
Alan L. Mayer	<i>Professor of Mathematics</i>
Ph.D., Princeton University	
*Michael B. Mazur	<i>Assistant Professor of Fine Arts</i>
M.F.A., Yale University	
Leslie Ann McArthur	<i>Assistant Professor of Psychology</i>
M.S., Yale University	

Marvin Meyers	<i>Truman Professor of American Civilization</i>
Ph.D., Columbia University	
Allen P. Mills, Jr.	<i>Assistant Professor of Physics</i>
Ph.D., Brandeis University	
Paul H. Monsky	<i>Associate Professor of Mathematics</i>
Ph.D., University of Chicago	
Charles W. Moore	<i>Associate Professor of Theater Arts</i>
M.F.A., Yale University	
Ricardo B. Morant	<i>Fierman Professor of Psychology</i>
Ph.D., Clark University	
Sidney Morgenbesser	<i>Visiting Professor of Philosophy</i>
Ph.D., University of Pennsylvania	
(Columbia University)	
*Ruth Schachter Morgenthau	<i>Avnet Professor of Black African Studies</i>
Ph.D., Oxford University, England	
E. Craig Morris	<i>Assistant Professor of Anthropology</i>
Ph.D., University of Chicago	
Leonard C. Muellner	<i>Instructor in Classics</i>
M.A., University of Michigan	
William T. Murakami	<i>Associate Professor of Biochemistry</i>
Ph.D., University of Southern California	
Pauli Murray	<i>Professor of American Civilization</i>
J.S.D., Yale Law School	
Peter B. Natchez	<i>Assistant Professor of Politics</i>
Ph.D., Harvard University	
Gordon D. Newby	<i>Assistant Professor of Mediterranean Studies</i>
Ph.D., Brandeis University	
Eric A. Nordlinger	<i>Associate Professor of Politics</i>
Ph.D., Princeton University	
Herbert Oberlander	<i>Assistant Professor of Biology</i>
Ph.D., Western Reserve University	
*Thomas O'Brien	<i>Assistant Professor of Economics</i>
Ph.D., Cornell University	
Irving Olin	<i>Associate Professor of Physical Education</i>
M.A., Rutgers University	
Gjerding Olsen	<i>Assistant Professor of Biology</i>
Ph.D., Harvard University	
Richard J. Onorato	<i>Assistant Professor of English</i>
Ph.D., Harvard University	
Richard S. Palais	<i>Professor of Mathematics</i>
Ph.D., Harvard University	
Alexander C. Parker	<i>Visiting Professor of History</i>
Ph.D., Oxford University	
(Queen's College, Oxford)	
Judith P. Pasqualucci	<i>Assistant Professor of Physical Education</i>
M.A., Michigan State University	
Hugh N. Pendleton, III	<i>Associate Professor of Physics</i>
Ph.D., Carnegie Institute of Technology	

- Frances S. Perkins *Lecturer in Psychology*
M.Ed., Tufts University
- Robert J. Pero *Visiting Assistant Professor of Fine Arts*
M.F.A., University of Iowa
- Robert P. Perrin *Assistant Professor of Physics*
Ph.D., Massachusetts Institute of Technology
- Daniel Pershonok *Visiting Lecturer in Psychology*
Ph.D., Harvard University
- William D. Phelan, Jr. *Instructor in Sociology*
A.B., Harvard University
- Mordeca J. Pollock *Assistant Professor of French*
Ph.D., Harvard University
- ***Robert O. Preyer *Professor of English*
Ph.D., Columbia University
- ***Philip Rahv *Professor of English*
- Alan T. Ramsey *Assistant Professor of Physics*
Ph.D., University of Wisconsin
- Harry Rand *Adjunct Professor of Clinical Psychology*
M.D., Middlesex University Medical School
- Esther E. Rawidowicz *Assistant Professor Emeritus of German*
Ph.D., University of Berlin
- O. Ralph Raymond, II *Assistant Professor of Politics*
M.A., Harvard University
- Bernard Reisman *Lecturer in American Jewish Communal Studies*
Ph.D., Brandeis University
- *Janine Reisman *Lecturer in French*
A.B., Brandeis University
- *Karl M. I. Reisman *Assistant Professor of Anthropology*
Ph.D., Harvard University
- Joshua Rifkin *Instructor in Music*
M.F.A., Princeton University
- Norman Rizzi *Instructor in Theater Arts*
- Dwight R. Robinson *Adjunct Assistant Professor of Biochemistry*
M.D., Columbia College of Physicians and Surgeons
- Marguerite S. Robinson *Assistant Professor of Anthropology*
Ph.D., Harvard University
- John P. Roche *Herter Professor of International Relations*
Ph.D., Cornell University
- Nicholas Rodis *Professor of Physical Education*
Ed.M., American International College
- Larry Rosenberg *Assistant Professor of Sociology*
Ph.D., University of Chicago
- Myron Rosenblum *Professor of Chemistry*
Ph.D., Harvard University
- Gerald Rosenthal *Associate Professor of Economics*
Ph.D., Harvard University
- George W. Ross *Assistant Professor of Sociology*
M.Sc., London School of Economics

* On Leave, 1970-71.

*** On Leave, Spring Term, 1970-71.

*Hugo Rossi	<i>Professor of Mathematics</i>
Ph.D., Massachusetts Institute of Technology	
Joshua Rothenberg	<i>Lecturer in Yiddish Literature</i>
M.A., Rutgers University	
Judith R. Rothschild	<i>Assistant Professor of French</i>
Ph.D., Johns Hopkins University	
Murray Sachs	<i>Professor of French</i>
Ph.D., Columbia University	
*I. Milton Sacks	<i>Hillquit Professor of Labor and Social Thought</i>
Ph.D., Yale University	
*Benson Saler	<i>Associate Professor of Anthropology</i>
Ph.D., University of Pennsylvania	
Ina Samuels	<i>Visiting Lecturer in Psychology</i>
Ph.D., University of Michigan	
Peter M. Sander	<i>Assistant Professor of Theater Arts</i>
M.F.A., Carnegie Institute of Technology	
Nahum M. Sarna	<i>Golding Professor of Biblical Studies</i>
Ph.D., Dropsie College	
Mary-Lou Sayles	<i>Instructor in Women's Physical Education</i>
B.S. in Ed., Northeastern University	
Jerome A. Schiff	<i>Professor of Biology</i>
Ph.D., University of Pennsylvania	
Robert F. Schleif	<i>Assistant Professor of Biochemistry</i>
Ph.D., University of California, Berkeley	
Peter E. Schmidt	<i>Assistant Professor of Physics</i>
Ph.D., Columbia University	
William Schneider	<i>Lecturer in Politics</i>
A.M., Harvard University	
Howard J. Schnitzer	<i>Professor of Physics</i>
Ph.D., University of Rochester	
Barney K. Schwalberg	<i>Assistant Professor of Economics</i>
Ph.D., Harvard University	
**Morris S. Schwartz	<i>Gryzmish Professor of Human Relations</i>
Ph.D., University of Chicago	
Silvan S. Schweber	<i>Professor of Physics</i>
Ph.D., Princeton University	
Robert T. Seeley	<i>Professor of Mathematics</i>
Ph.D., Massachusetts Institute of Technology	
William Chapin Seitz	<i>Professor of Fine Arts</i>
Ph.D., Princeton University	
David Segal	<i>Instructor in Hebrew and Medieval Jewish Studies</i>
M.A., Harvard University	
John W. Senders	<i>Lecturer in Psychology</i>
A.B., Harvard University	
Richard Sennett	<i>Assistant Professor of Sociology</i>
Ph.D., Harvard University	

° On Leave, 1970-71.

°° On Leave, Fall Term, 1970-71.

- ***Harold S. Shapero
A.B., Harvard University
Naumburg Professor of Music
- Marshall S. Shatz
M.A., Columbia University
Lecturer in History
- Ray A. Shepard
B.S., University of Nebraska
Assistant Professor of Afro-American Studies
- Seymour J. Shifrin
M.A., Columbia University
Professor of Music
- Michael I. Shub
Ph.D., University of California, Berkeley
Assistant Professor of Mathematics
- Murray Sidman
Ph.D., Columbia University
Visiting Lecturer in Psychology
- Andrew J. Silver
M.Sc., Massachusetts Institute of Technology
Lecturer in Theater Arts
- Marianna L. Simmel
Ph.D., Harvard University
Professor of Psychology
- Mitchell Siporin
Bloom Professor in Arts of Design
- Marshall Sklare
Ph.D., Columbia University
Professor of American Jewish Studies
- Philip E. Slater
Ph.D., Harvard University
Professor of Sociology
- Mary L. Small
B.S., Hampton Institute
Lecturer in Afro-American Studies
- John H. Smith
Ph.D., University of Illinois
Professor of English
- Roger Smith
B.A., King's College, Cambridge University
Assistant Professor in the History of Ideas
- *B. Zvi Sobel
Ph.D., New School for Social Research
Adjunct Associate Professor of Sociology
- Gerald L. Soliday
Ph.D., Harvard University
Assistant Professor of History
- Barbara L. Solow
Ph.D., Harvard University
Lecturer in Economics
- Frederic T. Sommers
Ph.D., Columbia University
Wolfson Professor of Philosophy
- Morris Soodak
Ph.D., Fordham University
Associate Professor of Biochemistry
- S. Susan Staves
Ph.D., University of Virginia
Assistant Professor of English
- Sidney I. Stecher
Ph.D., City University of New York
Assistant Professor of Psychology
- Colin Steel
Ph.D., Edinburgh University
Associate Professor of Chemistry
- *Maurice R. Stein
Ph.D., Columbia University
Potofsky Professor of Sociology
- Robert F. Stein
Ph.D., Columbia University
Assistant Professor of Astrophysics

• On Leave, 1970-71.

*** On Leave, Spring Term, 1970-71.

Raymond E. Stephens	<i>Assistant Professor of Biology</i>
Ph.D., Dartmouth College	
Robert Stevenson	<i>Professor of Chemistry</i>
D.Sc., Glasgow University	
Douglas J. Stewart	<i>Associate Professor of Classics</i>
Ph.D., Cornell University	
Ernest Stock	<i>Lecturer in Politics</i>
Ph.D., Columbia University	
Maurice Sussman	<i>Professor of Biology</i>
Ph.D., University of Minnesota	
Peter Swiggart	<i>Associate Professor of English</i>
Ph.D., Yale University	
Marie Syrkin	<i>Professor Emeritus of Humanities</i>
M.A., Cornell University	
Andrew G. Szent-Gyorgyi	<i>Professor of Biology</i>
M.D., University of Budapest	
Robert Szulkin	<i>Assistant Professor of Russian</i>
Ph.D., Harvard University	
Serge N. Timasheff	<i>Professor of Biochemistry</i>
Ph.D., Fordham University	
Caldwell Titcomb	<i>Associate Professor of Music</i>
Ph.D., Harvard University	
Ian A. Todd	<i>Assistant Professor of Mediterranean Studies</i>
Ph.D., University of Birmingham, England	
Anne Tolbert	<i>Instructor in Dance</i>
B.A., City College of New York	
Leo Treitler	<i>Associate Professor of Music</i>
Ph.D., Princeton University	
Thomas R. Tuttle, Jr.	<i>Associate Professor of Chemistry</i>
Ph.D., Washington University	
Milton I. Vanger	<i>Associate Professor of History</i>
Ph.D., Harvard University	
***John van Heijenoort	<i>Professor of Philosophy</i>
Ph.D., New York University	
Michel Vergne	<i>Lecturer in French</i>
Agrégé de Lettres, Modernes, Université de Paris (Sorbonne)	
Helen Van Vunakis	<i>Associate Professor of Biochemistry</i>
Ph.D., Columbia University	
(on a Research Cancer Award, National Institutes of Health)	
William R. Vitale	<i>Assistant Professor of Chemistry</i>
Ph.D., Columbia University	
*Samuel E. Wallace	<i>Assistant Professor of Sociology</i>
Ph.D., University of Minnesota	
Eugene V. Walter	<i>Visiting Professor of Sociology</i>
Ph.D., University of Minnesota	
(University of Massachusetts, Boston)	
Ronald W. Walters	<i>Assistant Professor of Afro-American Studies</i>
M.A., American University	

* On Leave, 1970-71.

*** On Leave, Spring Term, 1970-71.

- Kenneth N. Waltz *Stevenson Professor of International Politics*
Ph.D., Columbia University
- *Aileen Ward *Professor of English*
Ph.D., Radcliffe College
- Joseph D. Warren *Visiting Lecturer in African and Afro-American Studies*
B.S., North Carolina A. & T. State University
- Lois Ann Wasserspring *Assistant Professor of Politics*
M.A., Princeton University
- Richard S. Weckstein *Marks Professor of Economics*
Ph.D., University of Wisconsin
- Alex Weingrod *Associate Professor of Anthropology*
Ph.D., University of Chicago
- John Weiss *Visiting Professor of History*
Ph.D., Columbia University
(*Lehman College, City University of New York*)
- Morris Weitz *Professor of Philosophy*
Ph.D., University of Michigan
- Michael Wentworth *Assistant Professor and Assistant Director of*
M.F.A., Harvard University *Rose Art Museum*
- David Westphal *Lecturer in Theater Arts*
- Brenda Ann Wiechmann *Instructor in Women's Physical Education*
M.Ed., South Dakota State University
- ***David S. Wiesen *Associate Professor of Classics*
Ph.D., Harvard University
- John Burt Wight *Lecturer in English*
Ed.D., Harvard University
- Rupert H. Wilkinson *Visiting Lecturer in History*
A.B., Harvard University
- Arthur Wingfield *Assistant Professor of Psychology*
Ph.D., Oxford University
- Peter Witt *Assistant Professor of American Civilization and*
Ed.D., Harvard University *Director of Education Program*
- *Jerome Wodinsky *Associate Professor of Psychology*
Ph.D., University of Texas
- ***Kurt H. Wolff *Yellen Professor of Social Relations*
Ph.D., University of Florence
- *Peter Woll *Associate Professor of Politics*
Ph.D., Cornell University
- Luis E. Yglesias *Assistant Professor of Spanish*
Ph.D., Harvard University
- Dwight W. Young *Associate Professor of Ancient Near Eastern Civilization*
Ph.D., Dropsie College
- Louis V. Zábkar *Associate Professor of Mediterranean Studies*
Ph.D., University of Chicago
- George Zilzer *Consultant in Music*
M.A., Bennington College

° On Leave, 1970-71.

*** On Leave, Spring Term, 1970-71.

***Harry Zohn	<i>Professor of German</i>
Ph.D., Harvard University	
Irving K. Zola	<i>Associate Professor of Sociology</i>
Ph.D., Harvard University	
Edgar Zwilling	<i>Goodman Professor of Biology</i>
Ph.D., Columbia University	

Hiatt Institute in Israel

Ernest Stock, Ph.D.	<i>Director of the Hiatt Institute and Lecturer in Politics</i>
Asher Arian, Ph.D.	<i>Visiting Lecturer in Politics</i>
Mordecai Kamrat, Ph.D.	<i>Director of Hebrew Studies</i>
Baruch Mevorach, Ph.D.	<i>Visiting Lecturer in Modern Jewish History</i>
B. Zvi Sobel, Ph.D.	<i>Adjunct Associate Professor of Sociology</i>

Awards to Faculty on Leave 1970-71

- Maurice Auslander, Professor of Mathematics
University of Illinois and Queen Mary College, University of London
- Joseph S. Berliner, Rosen Professor of Economics
National Science Foundation Grant to U.S.S.R.
- James E. Duffy, Professor of Romance Literature and History
Social Science Research Council Grant
- David M. Freifelder, Associate Professor of Biochemistry
Career Development Award, N.I.H., for Weizmann Institute in Israel
- Benjamin Halpern, Professor of Near Eastern Studies
National Endowment for the Humanities Senior Fellowship
- Walter V. Laqueur, Professor of History of Ideas and Politics
Guggenheim Fellowship
- Joseph S. Lukinsky, Assistant Professor and Director of Jewish Education
Hebrew University, Jerusalem, Israel
- Thomas O'Brien, Assistant Professor of Economics
White House Fellow
- Philip Rahv, Professor of English
Nato Professor, University of East Anglia, England
- Karl M. I. Reisman, Assistant Professor of Anthropology
North Eastern State, Nigeria
- Hugo Rossi, Professor of Mathematics
Guggenheim Fellowship for France
- Benson Saler, Associate Professor of Anthropology
National Science Foundation Grant for Guajiro Peninsula and Spain
- Morris S. Schwartz, Gryzmish Professor of Human Relations
Organization for Social and Technological Innovation

*** On Leave, Spring Term, 1970-71.

Maurice Stein, Professor of Sociology
California Institute of the Arts

Aileen Ward, Professor of English
Radcliffe Institute Fellowship

David S. Wiesen, Associate Professor of Classics
National Endowment for the Humanities Fellowship

Jerome Wodinsky, Associate Professor of Psychology
Lerner Marine Laboratory, Bimini, Bahamas

School Councils

Creative Arts

Chairman to be announced: Paul H. Brainard (Music), James H. Clay (Theater Arts), Joachim E. Gaehde (Fine Arts).

Humanities

Chairman to be announced: Edward Engelberg (Comparative Literature), Lawrence H. Fuchs (American Civilization), Cyrus H. Gordon (Mediterranean Studies), Benjamin B. Hoover (English), Murray Sachs (Romance Languages), Nahum M. Sarna (NEJS), David S. Wiesen (Classics), Harry Zohn (Germanic and Slavic Languages),

Science

Professor Jack Goldstein, *Chairman*; Saul G. Cohen (Chemistry), Stanley Deser (Physics), Lawrence Levine (Biochemistry), Biology to be announced, G. Olsen (General Science), Robert T. Seeley (Mathematics).

Social Science

Chairman to be announced: Eugene C. Black (History), Robert Evans, Jr. (Economics), Lawrence H. Fuchs (American Civilization), Roy C. Macridis (Politics), Ricardo B. Morant (Psychology), Philip E. Slater (Sociology), Ronald W. Walters (African and Afro-American), Alex Weingrod (Anthropology).

Graduate School of Arts and Sciences

Brendan A. Maher, *Chairman*; Eugene C. Black, Paul H. Brainard, James H. Clay, Stanley Deser, Gunnar Dybwad, Benjamin Hoover, Cyrus H. Gordon, Leon Jick, Lawrence Levine, Henry Linschitz, Roy C. Macridis, Alasdair MacIntyre, Marvin Meyers, Ricardo B. Morant, Nahum M. Sarna, Robert T. Seeley, Philip E. Slater, Robert Stevenson, Alex Weingrod.

Faculty Committees

Educational Policy

Peter Diamandopoulos, *Chairman*; Henry Aiken, Gerald S. Bernstein, Allen Grossman, Leon Jick, John Matthews, Ricardo Morant, Richard J. Onorato, Hugh Pendleton, Richard Weckstein. One additional faculty member to be announced. Four students to be elected in the Fall. Observers: Charles Duhig, David Squire. Ex-Officio: President Schottland.

Administrative

To be announced in the Fall.

Faculty Senate

Robert H. Abeles, Joan Bamberger, Stephan Berko, Gerald S. Bernstein, Egon Bittner, Edgar H. Brown, Saul G. Cohen, David H. Fischer, Joachim E. Gaehde, Stephen J. Gendzier, David G. Gil, Martin Halpern, Victor Harris, Donald Hindley, Harold I. Levine, John Lowenstein, Herbert Oberlander, Mitchell Siporin, John H. Smith, Susan S. Staves, Robert Szulkin, Ronald W. Walters, Alex Weingrod, Irving K. Zola.

Research Associates and Fellows and Artists-in-Residence

Alice Adler, Ph.D.
George Appell, Ph.D.
Henri Brunengraber, Ph.D.
Howland Chamberlain
Daniel Chang, Ph.D.
Gene Davis, Ph.D.
Alain Deroulede, Ph.D.
Richard Eglund, Ph.D.
John T. Farrow, Ph.D.
Norman Felberg, Ph.D.
Robert Finch, Ph.D.
Thomas Finlay, Ph.D.
Alain Fourcade, Ph.D.
John P. Fox, Ph.D.
Norbert Frydman, Ph.D.
Howard Gershman, Ph.D.
Warren Giering, Ph.D.
Eliezer Goldschmidt, Ph.D.
Lowell Goldsmith, M.D.
Erela Gorin, Ph.D.
Albert M. Gottlieb
Elizabeth Gottschalk, Ph.D.
Stephen Gould, Ph.D.
Marina J. Gourbunoff, Ph.D.

Senior Research Associate in Biochemistry
Postdoctoral Fellow in Anthropology
Research Associate in Biochemistry
Artist-in-Residence in Theater Arts
Research Associate in Chemistry
Research Associate in Chemistry
Research Associate in Chemistry
Postdoctoral Fellow in Biochemistry
Postdoctoral Fellow in Biochemistry
Postdoctoral Fellow in Biochemistry
Postdoctoral Fellow (Trainee) in Biology
Postdoctoral Fellow in Biochemistry
Research Associate in Biochemistry
Postdoctoral Fellow in Biochemistry
Research Associate in Chemistry
Research Associate in Chemistry
Research Associate in Chemistry
Postdoctoral Fellow in Biology
Postdoctoral Fellow in Biochemistry
Research Associate in Biochemistry
Research Associate in Physics
Postdoctoral Fellow (Trainee) in Biology
Senior Research Associate in Chemistry
Senior Research Associate in Biochemistry

Judith Harris, Ph.D.
 Michael Harvey, Ph.D.
 Richard Hevey, Ph.D.
 Sarah Hitchcock, Ph.D.
 Francis Huneus, M.D.
 Hideo Inoue, Ph.D.
 Leonard Keller, Ph.D.
 Ronald Kluger, Ph.D.
 Larry Laber, Ph.D.
 William Lehman, Ph.D.
 Theodore Live, Ph.D.
 Lan Wei Lo, Ph.D.
 Inga Mahler, Ph.D.
 Michael Malin, Ph.D.
 John E. Maloney, Ph.D.
 John K. Marshall, M.A.
 Joseph Martin, Ph.D.
 Kenyon Martin, B.A.
 Eleanor McGowan, Ph.D.
 Roy McGowan, Ph.D.
 John J. Mieyal, Ph.D.
 J. Richard Mowat, Ph.D.
 Marion Nestle, Ph.D.
 K. Lype O'Dell, B.F.A.
 Denny O'Neal, Ph.D.
 Howard Ono, Ph.D.
 Michael Page, Ph.D.
 David Palmer, B.F.A.
 Eugene Pittz, Ph.D.
 Mark Roseman, Ph.D.
 Edward Rossomando, Ph.D.
 David Sakura, Ph.D.
 Jane Sayer, Ph.D.
 Virginia Senders, Ph.D.
 Thomas Shih, Ph.D.
 Christopher Snell, Ph.D.
 William Stine, Ph.D.
 Mario Studer, Ph.D.
 Raquel Sussman, Ph.D.
 Eva Szent-Gyorgyi, Ph.D.
 Alvin Telser, Ph.D.
 Michael Toth, Ph.D.
 Takahiko Tsuyuki, D.Sc.
 Swani Vethamany, Ph.D.
 Christopher Walsh, Ph.D.
 Moshe Werber, Ph.D.
 Mervyn Williams
 Michael Wolff, Ph.D.

Postdoctoral Fellow in Chemistry
Postdoctoral Fellow in Biology
Postdoctoral Fellow in Biochemistry
Postdoctoral Fellow in Biology
Postdoctoral Fellow in Biochemistry
Research Associate in Biochemistry
Postdoctoral Fellow in Chemistry
Postdoctoral Fellow in Biochemistry
Postdoctoral Fellow (Trainee) in Biology
Postdoctoral Fellow in Biology
Postdoctoral Fellow in Biochemistry
Senior Research Associate in Chemistry
Senior Research Associate in Biochemistry
Postdoctoral Fellow in Biochemistry
Postdoctoral Fellow in Physics
Research Associate in Anthropology
Research Associate in Chemistry
Artist-in-Residence in Theater Arts
Postdoctoral Fellow in Biochemistry
Postdoctoral Fellow (Trainee) in Biology
Postdoctoral Fellow in Biochemistry
Postdoctoral Fellow in Physics
Postdoctoral Fellow in Biochemistry
Artist-in-Residence in Theater Arts
Postdoctoral Fellow in Biology
Postdoctoral Fellow in Biochemistry
Research Associate in Biochemistry
Artist-in-Residence in Theater Arts
Postdoctoral Fellow in Biochemistry
Postdoctoral Fellow in Biochemistry
Postdoctoral Fellow (Trainee) in Biology
Postdoctoral Fellow in Biochemistry
Senior Research Associate in Biochemistry
Postdoctoral Fellow in Psychology
Research Associate in Biochemistry
Research Associate in Biochemistry
Postdoctoral Fellow in Biochemistry
Research Associate in Chemistry
Research Associate in Biology
Research Associate in Biology
Postdoctoral Fellow in Biology
Research Associate in Chemistry
Senior Research Associate in Chemistry
Postdoctoral Fellow (Trainee) in Biology
Postdoctoral Fellow in Biochemistry
Research Associate in Biochemistry
Artist-in-Residence in Theater Arts
Research Associate in Chemistry

Administration of the University

Charles I. Schottland, A.B., LL.D., L.H.D.

Acting President

Abram Leon Sachar, Ph.D., Litt.D.

Chancellor

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Gunnar Dybwad, J.D.

*Acting Dean of the Florence Heller Graduate School
for Advanced Studies in Social Welfare*

Leon A. Jick, M.H.L.

*Associate Dean of Faculty
for Undergraduate Curriculum*

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Assistant to the President and
Secretary to the Council*

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Administrative Assistant and Executive Secretary

Kenneth A. Sweder, J.D.

Assistant to the President

Joan Lief, A.C.S.

Secretary

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Abram Leon Sachar, Ph.D., Litt.D.

Chancellor

Eleanor Charter

Secretary to the Chancellor

OFFICE OF THE EXECUTIVE VICE PRESIDENT

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Executive Vice President

Constance P. Sonthoff

Executive Secretary

Deborah Kassman, B.A.

Special Assistant

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Executive Secretary

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 Jacqueline Miller
 John F. McDonough, M.S.
 Clarence Reynolds
 Henry A. Selib, B.S.
 John P. Redgate, Jr.
 Joseph Bradley, B.A.
 Ralph Norman

Director
Executive Secretary
Assistant Director
Publications Coordinator
Development Coordinator
Newswriter
Newswriter
Photographer

ALUMNI OFFICE

Sidney Goldfader, '54, M.A.
 Mary A. Scipione

Director
Administrative Assistant

SPECIAL EVENTS

Esther K. Schroeder
 Elizabeth Mayberry

Executive Director
Executive Secretary

NATIONAL WOMEN'S COMMITTEE

To be announced
 Marilyn A. Shapiro
 Roberta Felsen

Executive Director
Assistant Executive Director
Field Director, Eastern Region

FACULTY OF ARTS AND SCIENCES

Peter Diamandopoulos, Ph.D.
 Gertrude Carnovsky
 Bernard I. Levinson, M.B.A.
 Leon A. Jack, M.H.L.

Dean of Faculty, Arts and Sciences
Assistant to the Dean
Assistant to the Dean
Associate Dean of Faculty, Arts and Sciences
and Dean of the College
Assistant to the Dean
Associate Dean, Faculty of Arts and Sciences
and Dean of the Graduate School

Claire L. Freeman, Ed.M.
 Brendan A. Maher, Ph.D.

OFFICE OF SPONSORED RESEARCH
 Bernard I. Levinson, M.B.A.
 Dorothy Flannery

Coordinator of Sponsored Research
Executive Secretary

ADULT EDUCATION

Marjorie Cotton

Director

POSES INSTITUTE OF FINE ARTS

William C. Seitz, Ph.D.
 Margaret Canty, B.A.
 Michael J. Wentworth, M.F.A.

Director
Secretary
Assistant Director

ROSE ART MUSEUM

William C. Seitz, Ph.D.
 Michael J. Wentworth, M.F.A.
 Sarah M. Smith

Director
Assistant Director
Registrar

COLLEGE OF ARTS AND SCIENCES

Leon A. Jick, M.H.L.

Claire L. Freeman, Ed.M.

*Dean of the College**Assistant to the Dean*

OFFICE OF THE DEAN OF STUDENTS

Richard Onorato, Ph.D.

Dean of Students

Mathew R. Sgan, Ph.D.

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Susan Brown, M.S.

Assistant Dean

Patricia G. Toalson, B.A.

Assistant Dean

Thompson Williams, Jr., M.S.W.

Assistant Dean

Joan Gebron, B.S.

Director, Financial Aid

Elisabeth Lyman, M.A.

Director, Student Employment

OFFICE OF INTERNATIONAL PROGRAMS

Harrison Hoblitzelle, Ph.D.

Director

WIEN INTERNATIONAL SCHOLARSHIP PROGRAM

Harrison Hoblitzelle, Ph.D.

Director

Selma C. Finstein, M.Ed.

Assistant to the Director

Charlotte Heartt, B.A.

Study Abroad Advisor

JACOB HIATT INSTITUTE IN ISRAEL

Ernest Stock, Ph.D.

Director-in-Residence

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Carolyn P. Dean '67, B.A.

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W. Donald Potts, B.S.

*Assistant Director and**Director of Special Recruitment*

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Admissions Counselor

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Admissions Counselor

Sally Hartshorne, A.B.

Admissions Counselor

Helen Kass '58, B.A.

Admissions Counselor

Anna Curry

Administrative Secretary

TRANSITIONAL YEAR PROGRAM

Christopher T. Douglas, M.A.

Director

OFFICE OF THE REGISTRAR

Charles W. Duhig, M.A.

Registrar

Charles H. Thomsen, M.A.

Associate Registrar

Victor Ford, A.B., S.T.B.

Assistant Registrar

GRADUATE SCHOOL OF ARTS AND SCIENCES

Brendan A. Maher, Ph.D.	Dean
M. Catherine Butler, A.M.	Assistant Dean
Elaine P. Bridgett	Assistant to the Dean
Margaret R. Holland	Registrar
Mary E. O'Neill	Coordinator of Career Planning and Alumni Relations
Beatrice V. Olen	Executive Secretary
Estelle S. Colten	Secretary

LEMBERG CENTER FOR THE STUDY OF VIOLENCE

John P. Spiegel, M.D.	Director
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LOWN GRADUATE CENTER FOR CONTEMPORARY JEWISH STUDIES

Leon A. Jick, M.H.L.	Director
Bernard Reisman, Ph.D.	Associate Director

UNIVERSITY LIBRARIES

David R. Watkins, M.A.	Director
<i>On the Jacob and Bertha Goldfarb Library Grant</i>	
Rupert E. Gilroy, S.M.	Assistant Director and Deputy to the Director
Norbert Bernstein, M.S.L.S.	Assistant Director for Readers' Services
M. Alena Walcott, M.S.	Head Cataloging Librarian
Ivon B. Mills, S.B.	Head Reference Librarian
Rosalie Archer	Head of Circulation
Mironslav Krek, M.L.S.	Head Acquisitions Librarian
Edith Alpers, S.M.	Cataloger
Catherine Bazarian, S.M.	Cataloger
Victor Berch, S.M.	Assistant Special Collections Librarian
Edith Capon, B.L.S.	Cataloger
Eugene Carvalho, S.M.	Documents Librarian
Edna Dolber, S.B.	Assistant Reference Librarian
The Rev. George Kalangis, M.L.S.	Gift and Exchange Librarian
Joan Kelly, M.S.L.S.	Cataloger
Emilia Lange	Exhibits Director
Daniel Lourie, A.L.A.	Assistant Reference Librarian
Michael Ochs, M.A., M.S.L.S.	Creative Arts Librarian
Ayya Rin, M.A.L.S.	Semitics Cataloger
Ruth Risebrow, M.S.L.S.	Science Librarian
Joshua Rothenberg, S.M.	Judaica Bibliographer
Shalva Telushkin, M.S.L.S.	Semitics Cataloger
George Thompson, S.M.	Order Assistant

LEMBERG NURSERY SCHOOL

Frances Perkins, M.Ed.	Director
------------------------	----------

UNIVERSITY FINANCE OFFICE

Lester G. Loomis, M.B.A.
Phyllis T. Arico

Vice President and University Treasurer
Administrative Assistant

ACCOUNTING

Laurence J. Higgins, M.B.A., C.P.A.
Minna Yamins, B.S.
Stephen Cupp, B.B.A.
Beverly L. Fanning
Linda M. Bentley
John V. Leskowitz, B.S.

Controller
Secretary to the Controller
Chief Accountant
Assistant to the Controller
Assistant to the Controller
Research Administrator

DATA PROCESSING

James M. McNamara

Director

OFFICE OF ENVIRONMENTAL AFFAIRS

David F. Squire, B.A.
Barbara MacDonald

Vice President and Director of Environmental Affairs
Executive Secretary

ATHLETICS

Nicholas Rodis, Ed.M.

Chairman, Department of Physical Education
and Athletics

Irving Olin, Ed.M.
Rose S. Kenney, LL.B.
Emanuel A. Flumere, Ed.M.
Norman Levine, M.S.
John Hughes, Ed.M.
Hubert LeBlanc, B.S. '58
Lisel Judge, Ed.M.

Assistant Director of Physical Education and Athletics
Executive Secretary
Coordinator of Men's Physical Education
Coordinator of Aquatics Program
Men's Physical Education and Intramurals
Men's Physical Education and Athletics
Coordinator of Women's Physical Education
and Athletics
Women's Physical Education and Athletics
Women's Physical Education and Athletics
Women's Physical Education and Athletics

Judith Pasqualucci, M.A.
Mary-Lou Sayles, B.S.
Brenda Wiechmann, B.S.

ATHLETIC COACHING STAFF

Robert Baker, B.A.
Robert Brannum, B.S.
Emanuel A. Flumere, Ed.M.
Thomas Foley, B.A.
Robert Gustavson, M.A.
To be announced
Christopher Lane, Ed.M.
Hubert LeBlanc, B.S.
Norman Levine, M.S.
John Hughes, Ed.M.

Assistant, Lacrosse
Basketball
Golf
Tennis
Soccer, Wrestling, Lacrosse
Fencing
Assistant, Track
Assistant, Basketball
Cross Country, Track, Swimming
Baseball

CHAPLAINS

Robert W. Bullock, M.A.
 Victor Ford, A.B., S.T.B.
 Albert Axelrad, M.A.

Brandeis Newman Club
Brandeis Student Christian Association
Brandeis B'nai B'rith Hillel Foundation

DINING SERVICES

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 George Milligan

Director
Assistant Director

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 Robert W. Smith, Jr., B.A.
 Richard M. Dickinson
 Ruth Kelly
 Dorothy Merrill
 Sally Cacciatore
 Steven Muhlfelder, B.S.

Director
Secretary
Manager, Personnel Services
Manager, Purchasing Services
Manager, Telephone Services
Manager, Service Bureau
Manager, University Post Office
Manager, University Bookstore

HEALTH SERVICES

Sprague W. Hazard, M.D.
 Florentino P. Pina, M.D.
 Ralph Mankowich, M.D.
 Herbert I. Posin, M.D.
 Edwin M. Davidson, M.D.
 Morris Ringer, M.D.
 William Soybel, M.D.
 Roger H. Sweet, M.D.
 Robert Buxbaum, M.D.

Director
University Physician and Associate Director
University Surgeon
University Psychiatrist
Associate Psychiatrist
Associate Physician
Associate Physician
Associate Physician
Associate Physician

PSYCHOLOGICAL COUNSELING SERVICES

Herbert I. Posin, M.D.
 Eugenia Hanfmann, Ph.D.
 Edwin M. Davidson, M.D.
 Lawrence J. Bader, Ph.D.
 King Davis, M.S.W.
 Esther Osborne, A.M.
 Susan Vogel, Ph.D.
 Avrom Weinberg, M.A.

Director
Director of Research
Associate Psychiatrist
Counselor
Counselor
Counselor
Counselor
Counselor

Visiting Committee

Grete L. Bibring, M.D.
 Edward Daniels, M.D.

George W. Gardner, M.D.
 Elizabeth Zetzel, M.D.

SECURITY AND SAFETY

Wendell C. Brooks, M.A.
 George B. Kennedy, A.B.

Director
Assistant Director

STUDENT SERVICES

John Rich '58, B.A.
 Beverly Kaye, M.A.
 Shelley Kaplan, M.Ed.
 To be announced
 Alan J. Schweikert, M.B.A.

Director Usdan Student Center
Associate Director, Usdan Student Center
Associate Director, Usdan Student Center
Director of Residence
Associate Director of Residence

PLANNING AND UNIVERSITY RELATIONS

David L. Rolbein, M.S.
 Marie Collins

Director
Executive Secretary

PLANT OPERATIONS

Sumner J. Abrams, P.E.
 Dorothy Dennis
 Joseph M. Maher, Jr.
 J. Walter Mahoney
 John Sampson
 Nicholas Sottile
 Frank Connolly
 John Foti, P.E.
 Walter Carlson

Director of Construction and Plant Operations
Executive Secretary to the Director
Assistant to the Director
Supervisor, Academic Buildings
Supervisor, Residence Halls
Head Groundsman
Chief Engineer, Boiler Plant
Construction Coordinator
Construction Coordinator

FLORENCE HELLER GRADUATE SCHOOL FOR
ADVANCE STUDIES IN SOCIAL WELFARE

Gunnar Dybwad, J.D.
 Lillian E. Oates
 Keitha H. Anderson
 Mildred Guberman, M.S.W.

Acting Dean
Secretary to the Dean
Executive Assistant and Registrar
Director of Admissions

UNIVERSITY DEVELOPMENT

Clarence Quinn Berger, A.M.
 Nathan Perlmutter, LL.B.
 Helena Marling
 Daniel Ross, B.A.
 Irene Miller

Executive Vice President
Vice President for Development
Coordinating Assistant for Development
Assistant Vice President for Development
Executive Secretary

NATIONAL

Robert Golden, B.A.
 George Kessler, LL.B.
 Stephen G. Martin, B.A.
 Dominic Varisco, B.S.
 Shirley C. Norman, A.M.

Director of Development Services
Legal Counsel
Director, Resources for the Arts
Director, Special Programs
Scholarship Funds Coordinator

FIELD OPERATIONS

Leon Gordon

To be announced

Elizabeth Cedrone

Nathan J. Lubofsky, '58, M.A.

Mortimer Ross, B.A.

Irving Herman, B.A.

George Kessler, LL.B.

Harold B. Nappan, M.Sc.

Israel Nash, B.A.

Arnold Pfeffer

George Reich

Catherine Sugarman, B.S.

Pauline A. Engelberg

Irving R. Warner

Jack E. Wolfsohn, B.A.

Ruth Weiss, B.A.

*Senior Regional Director—Mid-Atlantic**Senior Regional Director—Massachusetts**Administrative Assistant**Field Representative**Field Representative**Senior Regional Director—Central**Senior Regional Director—New England**Senior Regional Director—East Central**Senior Regional Director—New York City**Associate Regional Director**Associate Regional Director**Associate Regional Director**Administrative Assistant**Senior Regional Director—West**Senior Regional Director—Midwest**Associate Regional Director*

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 Mr. Benjamin S. Appelbaum, 62, *Tenafly, New Jersey*
 Mr. Arnold Auerbach, *Boston, Massachusetts*
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